

Banner

**January 1, 1999**

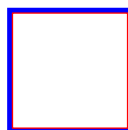
Fraser  
Basin  
Snow

[Fraser Basin Snow Survey Measurements](#)

### UPPER FRASER AND NECHAKO

Fall precipitation was variable with September and November reporting below normal amounts while above normal amounts were experienced in October and December.

The snowpack in the upper Fraser appears to be generally below normal for this date. The regional water equivalent index is estimated to be about 13% below normal for this date. All snow stations reporting at this date in the Nechako basin have relatively short records but indicate that the snowpack is close to average for the beginning of January.



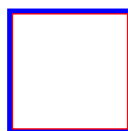
[Data Graphs](#)

### MIDDLE AND LOWER FRASER

Precipitation patterns in these basins have been variable over the past four months. The cumulative totals since November are close to normal in the Middle Fraser but well above normal in the lower Fraser.

Snowpacks in the middle Fraser basin vary from near normal in most of the northern parts of the basin to above normal in the Bridge River area. In the lower Fraser basin, there is very limited long term data, but indications are that the snowpack is well above normal. Three stations (all with twelve years or less of data at this date) set new record high water equivalent readings for January 1.

The flow in the Fraser River at Hope has been below normal for the past two months.



[Data Graphs](#)

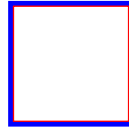
### NORTH AND SOUTH THOMPSON

After a relatively dry September, precipitation in the Thompson basin was well above normal in October and November

and near-normal in December. As a result, the cumulative total since November is a little above normal.

The very limited snowpack information available indicates that the snowpack in the North Thompson is about 14% above normal in the North Thompson and 24% above normal in the South Thompson basin.

Mostly as the result of the dry summer, the flows in the Thompson River near Spences Bridge have been below normal for the last two months.



[Data Graphs](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



[Information Disclaimer and Copyright Notice](#)

Banner

## January 1, 1999

Columbia  
Basin  
Snow

[Columbia Basin Snow Survey Measurements](#)

### UPPER AND LOWER COLUMBIA

After a dry September, the precipitation measured at valley-bottom meteorological stations in the subsequent three months has been above normal throughout the basin. Mean temperatures have been consistently above normal.

Several scheduled snow measurements in the lower Columbia basin could not be made due to adverse weather conditions. Based on the available data, the regional snowpack index for the Columbia basin is estimated to be about 20% greater than normal for this time of year.

Natural flows as indicated by the Columbia River at Donald have been below normal for the last two months.

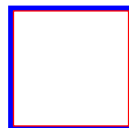
Data  
Graphs

[Data Graph](#)

### EAST AND WEST KOOTENAY

Precipitation was below normal in the Kootenay region in September and October, but well above normal in November and above normal in December. The cumulative precipitation since November is estimated to be about 24% greater than normal. Temperatures were consistently above normal throughout the last four months.

Although relatively few snow courses are measured at this sampling date, the indications are that the snowpack throughout the Kootenay region is well above normal for this time of year. The regional snowpack index is estimated to be 36% greater than normal which is high but less than previously recorded maximum values.



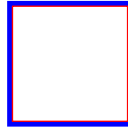
[Data Graphs](#)

### OKANAGAN, SIMILKAMEEN AND KETTLE

Precipitation in the region was below normal in September, but has been above normal since then with November being a particularly wet month.

Limited snowpack measurement at this sampling date indicates that the snow water equivalents throughout the region are well above normal with the regional snowpack index estimated to be 35% above normal.

Okanagan Lake has been very close to its normal winter target elevation for the last two months. If the present trend of greater than normal snowpack accumulation continues, gradual drawdown of the lake to accommodate an above normal spring runoff will be started.



[Data Graphs](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



[Information Disclaimer and Copyright Notice](#)

Banner

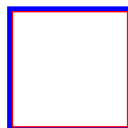
**January 1, 1999**

Snow  
Survey  
Measureme

[Coastal Basin Snow Survey Measurements](#)

### **SOUTH COASTAL AND VANCOUVER ISLAND**

Rainfall during September was far below normal and that in October was below normal. However, November was very wet and precipitation was above normal in December. As a result the relatively few snow course measurements available at this date indicate that the snowpack throughout the coastal area and Vancouver Island is well above normal. Although no new high records are set, several snow course readings are close to previously recorded maxima.



[Data Graphs](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)

[Information Disclaimer and Copyright Notice](#)

Banner

**January 1, 1999**

Snow  
Survey  
Measureme

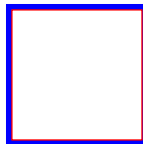
[Northern Basins Snow Survey Measurements](#)

### **NORTHEASTERN**

Precipitation in both the Peace and Liard basins was below normal in September and November, but above normal in October and December. The cumulative precipitation since November is just above normal in the Peace and well below normal in the Liard. Temperatures have generally been a little above normal throughout the fall.

The snowpacks throughout the region are below normal with the regional index for the Peace River basin estimated to be 9% below normal for this date.

Inflow to Williston Lake has been close to normal for the past two months.



[Data Graphs](#)

### **NORTHWESTERN**

Precipitation patterns throughout the region were of below normal amounts in September and November with above normal quantities reported for October and December. Mean temperatures were generally within a degree of normal throughout the fall.

Snow measurements at this date are very sparse but the available data indicates that the snowpack in the Nass, Stikine and Taku basins is well below normal while that in the Skeena basin is close to normal for this date.

The mean flow in the Skeena River at Usk has been well below normal for the last two months.

**FRASER**

January 1, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER FRASER</b>											
PRINCE GEORGE A	1A10	690	04	36	69	25	83	156	19	69	36
PACIFIC LAKE	1A11	770	01	128	271	268	464	476	177	304*	15
BURNS LAKE	1A16	800	04	50	104	60	176	176	26	69	24
PHILIP LAKE	4A13	980	05	83	206	116	234	268	64	120	16
HEDRICK LAKE	1A14	1100	01	131	291	294	453	640	294	404*	8
KAZA LAKE	1A12	1190	05	90	176	175	194	371	113	182*	13
MOUNT SHEBA	4A18	1490	01	140	346	385	588	793	287	489*	10
BARKERVILLE	1A03	1520	31	76	184	150	238	340	92	173	28
BARKERVILLE	1A03P	1520	Not Measured			143	184	312	103	179	18
KNUDSEN LAKE	1A15	1580	01	128	300	393	369	821	341	468*	10
REVOLUTION CREEK	1A17P	1690	01	-	331	412	311	814	240	452	14
LONGWORTH (UPPER)	1A05	1740	01	127	326	340	476	694	304	457*	9
YELLOWHEAD	1A01P	1860	01	111	356	300	236	300	236	268*	2
<b>NECHAKO</b>											
SKINS LAKE	1B05	880	31	34	74	31	-	111	0	53*	13
TAHTSA LAKE	1B02P	1300	01	-	817	783	631	939	475	682*	6
MOUNT PONDOSY	1B08P	1400	01	-	442	530	506	686	283	482*	6
MOUNT WELLS	1B01P	1490	01	-	280	326	433	433	241	310	6

<b>MIDDLE FRASER</b>											
PUNTZI MOUNTAIN	1C22	940	30	21	40	12	44	106	0	40	26
NAZKO	1C08	1070	05	26	54	13	74	84	13	39	13
BIG CREEK	1C21	1140	29	24	37	11	35	62	11	44	12
GRANITE MOUNTAIN	1C33	1150	30	48	94	43	153	158	43	113*	6
LAC LE JEUNE (LOWER)	1C07	1370	30	20	41	27	123	123	8	66	26
BRIDGE GLACIER (LOWER)	1C39	1400	02	148	400	344	204	456	204	336*	4
BRALORNE	1C14	1450	02	53	106	82	70	158	70	100*	4
BOSS MOUNTAIN MINE	1C20P	1460	01	-	319	236	394	461	236	323	5
LAC LE JEUNE (UPPER)	1C25	1460	30	25	70	33	146	146	10	81	26
BRENDA MINE	2F18P	1460	01	-	211	107	304	304	107	195	5
BARKERVILLE	1A03	1520	31	76	184	150	238	340	92	173	28
BARKERVILLE	1A03P	1520	Not Measured			143	184	312	103	179	18
GREEN MOUNTAIN	1C12	1630	Not Measured			-	199	528	110	315	11
MOUNT TIMOTHY	1C17	1660	27	70	140	38	193	251	38	149	13
YANKS PEAK EAST	1C41P	1670	01	146	454	491	473	491	473	482*	2
GREEN MOUNTAIN	1C12P	1780	01	-	604	454	405	707	312	479*	5
MCGILLIVRAY PASS	1C05	1800	02	133	348	325	235	458	196	290*	6
MISSION RIDGE	1C18P	1850	01	-	384	244	259	659	148	270	12
DOWNTON LAKE (UPPER)	1C38	1890	02	195	690	504	294	672	294	515*	4
TYAUGHTON CREEK (NORTH)	1C40	1950	02	121	360	248	216	364	216	271*	4
BRALORNE (UPPER)	1C37	1980	02	135	398	370	195	504	195	364*	4
<b>LOWER FRASER</b>											



WOLVERINE CREEK	1D13	300	01	18	45	32	193	193	0	93	22
DISAPPOINTMENT LAKE	1D18P	1040	04	-	975P	-	487	1304	487	896*	2
DICKSON LAKE	1D16	1070	02	243	956	726B	1006	1110	360	745*	6
DOG MOUNTAIN	3A10	1080	05	199	793	324	807	897	96	561	12
BEAVER PASS	WA12	1120	29	264	615	-	-	366	272	319*	2
KLESILKWA	3D03A	1130	02	79	243	-	386	386	0	120*	8
STAVE LAKE	1D08	1210	02	256	976	631B	878	892	112	554*	9
WAHLEACH LAKE	1D09	1400	02	113	417	327B	392	392	46	222*	12
WAHLEACH LAKE	1D09P	1400	01	-	640	320	777	777	259	501*	6
NAHATLATCH RIVER	1D10	1520	02	275	975	-	752	903	219	544*	8
EASY PASS	WA13	1580	Not Available			-	-	1651	229	731*	19
CHILLIWACK RIVER	1D17P	1600	Not Measured			477	1076	1076	454	744	6
GREAT BEAR	1D15P	1660	Not Measured			719	954	954	446	651	7
TENQUILLE LAKE	1D06	1680	02	222	751	540	658	875	205	522	21
<b>NORTH THOMPSON</b>											
BLUE RIVER	1E01B	670	31	74	127	117	232	263	69	158*	14
BOSS MOUNTAIN MINE	1C20P	1460	01	-	319	236	394	461	236	323	5
AZURE RIVER	1E08P	1620	01	175	626	683	540	683	540	612*	2
ADAMS RIVER	1E07	1720	01	158	452	251	397	475	205	288	13
KOSTAL LAKE	1E10P	1770	01	-	462	438	493	590	303	437	14
<b>SOUTH THOMPSON</b>											
MONASHEE PASS	2E01	1370	Not Available			110	-	239	84	162	19
ADAMS RIVER	1E07	1720	01	158	452	251	397	475	205	288	13
KIRBYVILLE LAKE	2A25	1750	01	279	830	-	715	854	389	565	15
SILVER STAR MOUNTAIN	2F10	1840	01	160	409	244	565	565	163	339	34
PARK MOUNTAIN	1F03P	1890	01	-	473	316	608	632	281	410	13

ENDERBY

1F04

1900

30

213

420

400

646

742

292

476

23

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE

# COLUMBIA

*January 1, 1999*

## Snow Survey Measurements

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER COLUMBIA</b>											
DOWNIE SLIDE (LOWER)	2A27	980	01	177	424	-	484	504	190	320	15
GLACIER	2A02	1250	31	156	392	321	279	519	147	331	28
FIELD	2A03A	1280	Not Available			-	-	127	40	86*	8
VERMONT CREEK	2A19	1520	02	124	328	229B	283	309	120	221	15
AZURE RIVER	1E08P	1620	01	175	626	683	540	683	540	612*	2
DOWNIE SLIDE (UPPER)	2A29	1630	01	313	940	-	772	1022	402	575	13
KICKING HORSE	2A07	1650	Not Available			-	-	257	87	169	20
KIRBYVILLE LAKE	2A25	1750	01	279	830	-	715	854	389	565	15
MOUNT REVELSTOKE	2A06P	1830	01	-	780	547	647	835	383	571	6
FIDELITY MOUNTAIN	2A17	1870	27	210	597	625	510	1228	334	610	24
BEAVERFOOT	2A11	1890	02	55	123	111	-	215	70	118	14
KEYSTONE CREEK	2A18	1890	01	186	543	-	527	577	266	376	14
GOLDSTREAM	2A16	1920	01	215	614	-	595	906	427	579	14

BUSH RIVER	2A23	1920	01	180	547	419	416	722	216	416	15
MOUNT ABBOT	2A14	1980	02	234	723	590	504	1065	350	575	14
MOLSON CREEK	2A21P	1980	01	-	656	609	427	1072	318	565	18
SUNBEAM LAKE	2A22	2010	01	178	484	430	484	767	305	479	15
<b>LOWER COLUMBIA</b>											
FERGUSON	2D02	880	29	164	373	183	-	409	117	263	19
FARRON	2B02A	1220	31	74	174	40	330	330	40	177	14
MONASHEE PASS	2E01	1370	Not Available			110	-	239	84	162	19
WHATSHAN (UPPER)	2B05	1480	Not Available			274	-	543	207	316	15
BARNES CREEK	2B06	1620	Not Available			191	-	363	146	240	14
BARNES CREEK	2B06P	1620	01	-	300	199	409	409	199	305*	6
ST. LEON CREEK	2B08	1800	Not Available			617	-	1164	397	620	12
ST. LEON CREEK	2B08P	1800	Not Measured			-	626	637	368	569	4
KOCH CREEK	2B07	1860	Not Available			-	-	452	170	329	11
RECORD MOUNTAIN	2B09	1890	27	189	538	150	504	504	134	401	14
EAST CREEK	2D08P	2030	01	-	596	322	382	858	219	476	17
<b>EAST KOOTENAY</b>											
FERNIE EAST	2C07	1250	04	69	144	52	222	330	28	166	23
MARBLE CANYON	2C05	1520	01	103	191	128	247	300	84	176	24
SULLIVAN MINE	2C04	1550	27	76	172	29	226	226	29	126*	13
WEASEL DIVIDE	MT02	1660	28	165	472	246	-	691	218	390*	13
MOUNT JOFFRE	2C16	1750	02	115	260	-	299	364	86	155	14

MORRISSEY RIDGE	2C09Q	1800	01	-	450	199	517	706	157	322	15
MOYIE MOUNTAIN	2C10P	1930	01	100	349	128	-	354	76	172*	19
THUNDER CREEK	2C17	2010	02	74	166	-	237	276	65	117	14
FLOE LAKE	2C14	2090	02	184	497	315B	-	747	217	383	14
FLOE LAKE	2C14P	2090	Not Measured			255	394	502	187	332	4
HIGHWOOD SUMMIT (BUSH)	AL02	2210	Not Measured			-	272	399	97	225*	9
MOUNT ASSINIBOINE	2C15	2230	02	136	341	289B	325	567	162	248	15
SUNSHINE VILLAGE	AL05	2230	Not Measured			198P	-	251P	193	214*	3
<b>WEST KOOTENAY</b>											
FERGUSON	2D02	880	29	164	373	183	-	409	117	263	19
NELSON	2D04	930	30	92	212	100	366	366	66	173	39
CHAR CREEK	2D06	1310	03	122	360	119A	480	480	110	239	15
GRAY CREEK (LOWER)	2D05	1550	05	117	302	-	-	372	69	185	19
KOCH CREEK	2B07	1860	Not Available			-	-	452	170	329	11
MOUNT TEMPLEMAN	2D09	1860	02	227	640	520B	-	902	347	504	12
GRAY CREEK (UPPER)	2D10	1910	Not Measured			-	-	612	222	380	11
EAST CREEK	2D08P	2030	01	-	596	322	382	858	219	476	17
<b>KETTLE</b>											
FARRON	2B02A	1220	31	74	174	40	330	330	40	177	14
MONASHEE PASS	2E01	1370	Not Available			110	-	239	84	162	19
BIG WHITE MOUNTAIN	2E03	1680	04	123	320	160	326	326	112	198	15
GRANO CREEK	2E07P	1860	01	110	308	154	-	154	154	154*	1

<b>OKANAGAN</b>											
SUMMERLAND RESERVOIR	2F02	1280	30	63	121	63	183	198	46	111	35
BRENDA MINE	2F18P	1460	01	-	211	107	304	304	107	195	5
GREYBACK RESERVOIR	2F08	1550	04	56	124	56	179	181	56	112	16
ISINTOK LAKE	2F11	1680	31	56	109	41	131	196	16	84	33
MISSION CREEK	2F05P	1780	01	120	311	146	325	326	104	201	28
MOUNT KOBAN	2F12	1810	30	72	197	63	261	261	28	157	22
WHITEROCKS MOUNTAIN	2F09	1830	02	151	437	-	396	447	122	272	20
SILVER STAR MOUNTAIN	2F10	1840	01	160	409	244	565	565	163	339	34
<b>SIMILKAMEEN</b>											
FREEZEOUT CREEK TRAIL	WA11	1070	30	81	226	-	-	259	145	202*	2
HAMILTON HILL	2G06	1490	03	80	195	127A	299	313	55	139	14
MISSEZULA MOUNTAIN	2G05	1550	02	62	139	62	197	197	62	130*	6
ISINTOK LAKE	2F11	1680	31	56	109	41	131	196	16	84	33
LOST HORSE MOUNTAIN	2G04	1920	06	57	112	-	-	120	54	106	6
BLACKWALL PEAK	2G03P	1940	01	-	645	293	611	923	108	391	29
HARTS PASS	WA09	1980	30	269	744	-	-	-	-	-	0
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											

**COASTAL**

January 1, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>SOUTH COASTAL</b>											
PALISADE LAKE	3A09P	880	01	-	782	337	-	785	337	561*	2
DOG MOUNTAIN	3A10	1080	05	199	793	324	807	897	96	561	12
GROUSE MOUNTAIN	3A01	1100	05	218	832	416	866	878	24	428	18
ORCHID LAKE	3A19	1190	04	276	1066	577	-	1214	202	801	18
ORCHID LAKE	3A19P	1190	01	-	1085	435	-	1285	243	740*	14
UPPER SQUAMISH RIVER	3A25P	1340	Not Measured			630	818	1072	503	723	7
NOSTETUKO RIVER	3A22P	1500	Not Measured			259	207	524	32	258*	9
UPPER MOSELY CREEK	3A24P	1650	01	-	204	137	128	491	85	182	10
<b>VANCOUVER ISLAND</b>											
ELK RIVER	3B04	270	04	22	78	0	159	264	0	92*	14
WOLF RIVER (LOWER)	3B19	640	26	103	310	86	306	326	0	123*	10

WOLF RIVER (MIDDLE)	3B18	1070	26	150	444	228	402	590	0	225*	10
FORBIDDEN PLATEAU	3B01	1130	26	251	850	504	-	1287	0	587	16
JUMP CREEK	3B23P	1160	01	171	700A	251	806	806	244	434*	3
WOLF RIVER (UPPER)	3B17P	1490	01	-	725	561	597	1057	150	531	10
<b>NORTH COASTAL</b>											
TAHTSA LAKE	1B02P	1300	01	-	817	783	631	939	475	682*	6
BURNT BRIDGE CREEK	3C08P	1330	01	154	400A	600	-	600	600	600*	1
<b>SKAGIT</b>											
FREEZEOUT CREEK TRAIL	WA11	1070	30	81	226	-	-	259	145	202*	2
BEAVER PASS	WA12	1120	29	264	615	-	-	366	272	319*	2
KLESILKWA	3D03A	1130	02	79	243	-	386	386	0	120*	8
HARTS PASS	WA09	1980	30	269	744	-	-	-	-	-	0
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											



**NORTH**

January 1, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>PEACE</b>											
FORT ST. JOHN A	4A25	690	Not Measured		14	104	134	14	56	24	
MACKENZIE A	4A19	700	Not Measured		88	136	283	51	97	26	
PACIFIC LAKE	1A11	770	01	128	271	268	464	476	177	304*	15
BULLHEAD MOUNTAIN	4A28	790	31	22	52	0	108	111	0	52*	15
PHILIP LAKE	4A13	980	05	83	206	116	234	268	64	120	16
WARE (LOWER)	4A04	980	06	54	74	80	117	240	63	121*	8
AIKEN LAKE	4A30P	1040	01	-	108	132	128	262	86	141*	11
TUTIZZI LAKE	4A06	1070	05	78	156	99	147	187	85	135*	8
TSAYDAYCHI LAKE	4A12	1160	05	107	264	208	282	393	128	186	15
KAZA LAKE	1A12	1190	05	90	176	175	194	371	113	182*	13
PULPIT LAKE	4A09	1310	06	106	182	217	219	398	182	259*	10
FREDRICKSON LAKE	4A10	1310	05	71	102	103	108	250	103	148*	9
PULPIT LAKE	4A09P	1310	01	-	158	274	204	344	204	272*	7
PINE PASS	4A02P	1400	01	-	549	762	548	1016	509	566	9
TRYGVE LAKE	4A11	1400	06	83	152	208	160	299	126	188	13
SIKANNI LAKE	4C01	1400	06	71	108	142	124	257	65	138	15

PINE PASS	4A02	1430	Not Available			843	-	988	314	549	17
MORFEE MOUNTAIN	4A16	1450	Not Available			536	-	710	373	581*	4
LADY LAURIER LAKE	4A07	1460	Not Available			315	216	472	154	249	15
MOUNT SHEBA	4A18	1490	01	140	346	385	588	793	287	489*	10
GERMANSEN (UPPER)	4A05	1500	05	85	191	162	228	364	99	179	16
MOUNT STEARNS	4A21	1500	06	47	70	94	91	151	45	96*	9
JOHANSON LAKE	4B02	1540	05	69	116	207	137	282	90	148	16
MONKMAN CREEK	4A20	1550	01	109	257	192	-	546	192	291*	8
WARE (UPPER)	4A03	1570	06	69	148	182	143	248	97	170*	9
BULLMOOSE CREEK	4A31	1570	Not Available			232	266	493	94	278*	11
KWADACHA RIVER	4A27P	1620	01	-	137	-	160	307	109	171	12
<b>SKEENA/NASS</b>											
TERRACE A	4B13A	180	05	45	150	22	162	162	0	68*	16
KAZA LAKE	1A12	1190	05	90	176	175	194	371	113	182*	13
LU LAKE	4B15P	1310	01	64	146	116	-	116	116	116*	1
TSAI CREEK	4B17P	1360	01	190	589	581	-	581	581	581*	1
TRYGVE LAKE	4A11	1400	06	83	152	208	160	299	126	188	13
HUDSON BAY MTN.	4B03A	1480	05	112	312	272	394	470	135	254	23
SHEDIN CREEK	4B16P	1480	01	132	353	503	405	503	400	436*	3
JOHANSON LAKE	4B02	1540	05	69	116	207	137	282	90	148	16
<b>LIARD</b>											
FORT NELSON A	4C05	380	Not Measured			27	59	112	20	58*	32
DEASE LAKE	4C03	820	06	43	60	43	-	150	20	70	32

DEADWOOD RIVER	4C09P	1300	01	-	52	34	58	211	34	93*	5
SIKANNI LAKE	4C01	1400	06	71	108	142	124	257	65	138	15
<b>STIKINE/ TAKU</b>											
FORREST-KERR CREEK	4D08P	560	01	-	219	-	198	655	198	374*	7
DEASE LAKE	4C03	820	06	43	60	43	-	150	20	70	32
KINASKAN LAKE	4D11P	1020	01	-	104	207	107	378	107	207*	8
TUMEKA CREEK	4D10P	1220	01	-	186	354	-	591	314	341	7
WADE LAKE	4D14P	1370	01	-	91	201	-	344	125	240	7
UPPER STIKINE	4D13P	1450	01	-	186	287	189	433	183	289*	9

**YUKON**

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE

Banner

**February 1, 1999**

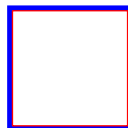
Fraser  
Basin  
Snow

[Fraser Basin Snow Survey Measurements](#)

### **UPPER FRASER AND NECHAKO**

Precipitation as measured at Environment Canada's weather stations was about 53% above normal in the upper Fraser and a little below normal in the Nechako basin during January, with mean temperatures about three degrees above normal. As a result, the snowpack accumulation during the month was considerably greater than normal with the regional snowpack index increasing from 13% below normal at the beginning of January to 22% above normal at the end. The largest increases appear to be east of Prince George as the Nechako basin reports only near normal snowpack accumulation during the month with the basin average remaining about 11% above normal for this date.

The flow in the Fraser River at Marguerite (south of Quesnel) was below normal during January continuing the trend of the previous two months.



[Data Graphs](#)

### **MIDDLE AND LOWER FRASER**

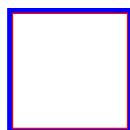
Precipitation reported by Environment Canada weather stations during January was about 70% above normal in the middle Fraser, and about 8% above normal in the lower Fraser basin. Total precipitation since the beginning of November is about 25% greater than normal. Temperatures were as much as 5°C above normal.

The middle Fraser snowpack accumulations during the month were above normal and the regional water equivalent index is now estimated to be 40% above normal for this date. In the lower Fraser basin poor weather conditions have resulted in some scheduled snow courses going unmeasured so far. However, based on limited measurements, it appears that snowpack accumulations were greater than normal but that the basin average remained steady at about 44% greater than normal.

The flow in the Fraser River at Hope during January was about 20% below its normal value, continuing a trend noted over the winter.

Higher than normal snowpacks at this time of year point to a higher than normal volume of runoff when the main mountain snowpack melts in May and June. The weather, both during the remainder of the accumulation period and

during the melt period, will have a major effect on the peak levels attained during the runoff.



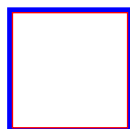
[Data Graphs](#)

## **NORTH AND SOUTH THOMPSON**

Precipitation in the Thompson River basin as measured at valley bottom weather stations was well above normal in the north and 10% above normal in the south. Total precipitation since the beginning of November is 23% above normal in the North Thompson and 14% above normal in the South Thompson. Mean monthly temperatures in the basin were an astonishing 6°C above normal.

Snowpack accumulations during the month were considerably above normal. There are three relatively long term snow courses: Adams River (1E07), Kostal Lake pillow (1E10P) and Enderby (1F04), that report all time high readings for this month. The regional snow water equivalent index increased from 14% and 24% above normal at the beginning of January to 32% and 41% above normal at present for the North and South Thompson basins, respectively.

The mean flow in the Thompson River near Spences Bridge remained below normal during January.



[Data Graphs](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



[Information Disclaimer and Copyright Notice](#)

Banner

**February 1, 1999**

Columbia  
Basin  
Snow

[Columbia Basin Snow Survey Measurements](#)

### UPPER AND LOWER COLUMBIA

Precipitation in the Columbia basin was 33% greater than normal during January, bringing the total accumulation since the beginning of January to 38% greater than normal. Mean monthly temperatures were about 4°C above normal. Adverse weather conditions have hampered the snowpack measurements in the main Columbia valley, but the overall regional snowpack is estimated to have increased from 20% above normal at the beginning of the month to 35% above normal at the beginning of February.

Natural inflow as measured by the Columbia River at Donald was a little below normal during January.

Data  
Graphs

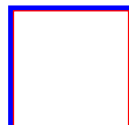
[Data Graph](#)

### EAST AND WEST KOOTENAY

Environment Canada weather stations indicate that the valley bottom precipitation in the Kootenays was a little below normal in January. However, the total precipitation since the beginning of November is still estimated to be about 13% above normal. Mean monthly temperature was about 4°C above normal.

Snow accumulations were a little above normal during the month which has resulted in the regional snow water equivalent index remaining at about 37% above normal for this sampling period. This is very similar to the snowpack reported at this date in 1997, the last high runoff year. At this time last year the snowpack was estimated to be about 20% below normal.

The mean monthly flow in the Kootenay River at Fort Steele continued to be below normal in January.

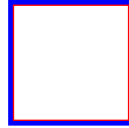


[Data Graphs](#)

### OKANAGAN, SIMILKAMEEN AND KETTLE

Valley bottom precipitation throughout the region was a little below normal for January with mean monthly temperatures about 4°C above normal. Snowpack accumulations were above normal during the month with the regional index remaining about 35% above normal throughout the area. The water equivalent at the Mission Creek snow pillow (2F05P), which has a 27-year record, is at an all time high level for this date.

It appears that the runoff into Okanagan Lake will be well above normal this year as the present snowpack is close to the amount normally present when the snowpack peaks in early April. A gradual drawdown in anticipation of this runoff started in January and will continue. The lake is currently about 8cm lower than normal for this date.



[Data Graphs](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



[Information Disclaimer and Copyright Notice](#)

Banner

## February 1, 1999

Snow  
Survey  
Measurements

[Coastal Basin Snow Survey Measurements](#)

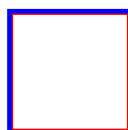
### SOUTH COASTAL AND VANCOUVER ISLAND

In the South Coast region, January precipitation at weather stations and snowfall at snow courses/pillows was above normal. February 1 snowpacks in the South Coast region are well above normal, and several snow courses report record water content, notably Grouse Mountain (3A01) with 49 years of record. Precipitation totals since September continue to be above normal.

On Vancouver Island, precipitation and snow data has followed the same trends as the South Coast. While February 1 snow surveys are sparse because of bad weather preventing access to stations, the indication is a February 1 snowpack that is well above normal.

Mean monthly temperatures for the South Coast and Vancouver Island have been above normal since September, by amounts of 0.4° to 1.8°C.

Regional runoff as represented by inflow to Upper Campbell Lake on Vancouver Island was above normal for November through January.



[Data Graphs](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)



Banner

**February 1, 1999**

Snow  
Survey  
Measuremen

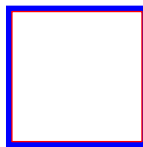
[Northern Basins Snow Survey Measurements](#)

### **NORTHEASTERN**

The February 1 Peace River basin snowpack is above normal in the south part of the basin, and trends to below normal in the northern part. The Liard basin snowpack is below normal, based on a few stations.

Monthly precipitation values since September have been up and down in the northeast, but seasonal totals since November are just above normal for the Peace basin and just below normal for the Liard basin. Mean monthly temperatures for northeastern BC for September through January have ranged from normal to 1.6°C above normal.

Runoff in the region is indicated by inflow to Williston Lake, which has trended from 90 to 130% of normal for November through January.



[Data Graphs](#)

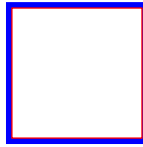
### **NORTHWESTERN**

In northwestern BC, long term snow survey stations vary from normal to below normal, except for the low elevation snow course at Terrace which was above normal. The overall snowpack in the region is just below normal.

Monthly precipitation measured at weather stations was very low in September, and alternated high and low since then. Seasonal total precipitation since November is just below normal. Temperatures have been less variable, ranging from -0.2°C to +1.8°C compared to normal monthly values.

The Skeena River at Usk is used as an indicator of runoff in the northwest - it has been below normal for

November through January.



[Data Graphs](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



[Information Disclaimer and Copyright Notice](#)

**FRASER**

February 1, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER FRASER</b>											
PRINCE GEORGE A	1A10	690	27	55	128	52	150	224	52	118	37
PACIFIC LAKE	1A11	770	30	219	564	382	544	679	269	425	31
BURNS LAKE	1A16	800	29	62	120	116	232	232	44	112	28
CANOE RIVER	2A01A	910	26	36	74	67	104	140	39	102	24
PHILIP LAKE	4A13	980	31	102	224	173	336	353	124	199	32
HEDRICK LAKE	1A14	1100	30	261	680	412	555	823	316	465	31
BIRD CREEK	1A23	1180	29	57	116	86	176	176	72B	121*	8
KAZA LAKE	1A12	1190	31	100	231	236	290	440	125	229	29
MOUNT SHEBA	4A18	1490	30	241	691	523	687	918	317	543	29
BARKERVILLE	1A03	1520	01	119	322	179	-	373	132	253	46
BARKERVILLE	1A03P	1520	01	-	345	176	296	351	163	251	20
MC BRIDE (UPPER)	1A02	1580	01	133	354	236	312	503	174	315	45
KNUDSEN LAKE	1A15	1580	30	248	646	524	477	899	334	613	28
REVOLUTION CREEK	1A17P	1690	01	-	656	460	499	930	460	609	13
LONGWORTH (UPPER)	1A05	1740	30	233	656	532	630	890A	315	523	26
MARMOT JASPER	AL12	1830	27	77	191	-	-	178	170	174*	2
YELLOWHEAD	1A01P	1860	01	182	596	356	386	386	356	371*	2
<b>NECHAKO</b>											

SKINS LAKE	1B05	880	30	41	102	92	224	224	35	93	31
TAHTSA LAKE	1B02	1300	28	288	929	890	835	1209	508A	779	44
TAHTSA LAKE	1B02P	1300	01	-	1079	1030	881	1030	652	861*	5
KIDPRICE LAKE	4B01	1370	28	198	649	635	748	894B	440	607	41
MOUNT PONDOSY	1B08P	1400	01	-	689	634	677	750	393	599*	6
MOUNT WELLS	1B01	1490	29	135	366	330	477	549B	213	367	15
MOUNT WELLS	1B01P	1490	01	-	396	396	530	555	390	381	6
NUTLI LAKE	1B07	1490	29	136	365	377	430	579	295	411*	7
MOUNT SWANNELL	1B06	1620	29	103	256	162	333	382B	142	225*	10
<b>MIDDLE FRASER</b>											
PUNTZI MOUNTAIN	1C22	940	31	35	61	18	64	126	0	55	29
NAZKO	1C08	1070	02	45	100	31	94	137B	6A	69	22
BIG CREEK	1C21	1140	31	30	53	32	49	100B	0	52	26
GRANITE MOUNTAIN	1C33	1150	01	76	187	77	217	217	77	161*	6
LAC LE JEUNE (LOWER)	1C07	1370	01	49	97	63	130	208	25	91	42
CONANT LAKE	1C31	1370	31	78	164	130	241	241	72	154	17
BRIDGE GLACIER (LOWER)	1C39	1400	03	223	688	504	414	520	414	475*	4
BRALORNE	1C14	1450	03	91	230	108	188	338	0	135	28
SHOVELNOSE MOUNTAIN	1C29	1450	02	127	307	211	296	296	84	214	19
BONAPARTE LAKE	1C34	1450	04	115	312	152	295	327	152	242*	6
BOSS MOUNTAIN MINE	1C20P	1460	01	173	574	345	518	566	345	432	5
LAC LE JEUNE (UPPER)	1C25	1460	01	66	140	94	177	177	13	114	26
BRENDA MINE	2F18P	1460	01	-	317	212	368	368	168	265	6
BARKERVILLE	1A03	1520	01	119	322	179	-	373	132	253	46
BARKERVILLE	1A03P	1520	01	-	345	176	296	351	163	251	20

GREEN MOUNTAIN	1C12	1630	Not Measured			-	445	658	119	449	30
MOUNT TIMOTHY	1C17	1660	30	131	384	137	315	376	103	222	32
YANKS PEAK EAST	1C41P	1670	01	218	761	540	653	653	540	597*	2
GREEN MOUNTAIN	1C12P	1780	01	-	948	658	668	808	410	655*	5
MCGILLIVRAY PASS	1C05	1800	03	223	645	439	454	618	150	399	47
MISSION RIDGE	1C18P	1850	01	-	661	354	457	794	254	434	12
DOWNTON LAKE (UPPER)	1C38	1890	03	298	980	706	552	780	552	680*	4
TYAUGHTON CREEK (NORTH)	1C40	1950	03	208	646	-	360	360	288	326*	3
BRALORNE (UPPER)	1C37	1980	03	219	724	460	498	600	460	519*	4
<b>LOWER FRASER</b>											
WOLVERINE CREEK	1D13	300	31	32	100	52	270	270	10A	139	23
SUMMALLO RIVER WEST	3D01C	790	07	107	282	248	368	368	0	157*	7
DISAPPOINTMENT LAKE	1D18P	1040	Not Available			-	1144	1597	1144	1371	2
CALLAGHAN CREEK	3A20	1040	28	264	804	648	662	879	50	569	15
DICKSON LAKE	1D16	1070	Not Measured			704	1207	1220	398	819*	7
DOG MOUNTAIN	3A10	1080	29	336	1187	746	966	980A	316	738	15
BEAVER PASS	WA12	1120	29	229	729	541	886	922	36	502*	30
KLESILKWA	3D03A	1130	Not Measured			140	454	508	0	223	45
STAVE LAKE	1D08	1210	Not Measured			1008	1043	1430	163	984	29
WAHLEACH LAKE	1D09	1400	Not Measured			303	526	815	33	366	31
WAHLEACH LAKE	1D09P	1400	01	-	1012	698	1036	1036	573	715*	6
NAHATLATCH RIVER	1D10	1520	Not Measured			961	911	1359	262	934	26
EASY PASS	WA13	1580	Not Available			1575	-	2184	279	1160	30

CHILLIWACK RIVER	1D17P	1600	01	-	1668	942	1560	1560	771	1136	7
GREAT BEAR	1D15P	1660	Not Measured			1281	1391	1391	682	1017	8
TENQUILLE LAKE	1D06	1680	27	272	948	952	870	1206	241	735	27
<b>NORTH THOMPSON</b>											
BLUE RIVER	1E01B	670	01	118	262	224	340	340	98	248*	15
KNOUFF LAKE	1E05	1200	01	58	131	76	139	229	38	114	39
COOK FORKS	1E06	1390	01	304	862	573	721	874	353	584	25
BOSS MOUNTAIN MINE	1C20P	1460	01	173	574	345	518	566	345	432	5
MOUNT COOK	1E02A	1580	01	351	1082	880	975	1237	536	824	23
AZURE RIVER	1E08P	1620	01	279	998	859	788	859	788	824*	2
ADAMS RIVER	1E07	1720	27	208	654	429	582	588	285	433	18
KOSTAL LAKE	1E10P	1770	01	-	764	604	713	764	415	604	14
NORTH CLEMINA CREEK	1E13	1860	26	187	581	528	542	796	315	593*	10
<b>SOUTH THOMPSON</b>											
ANGLEMONT	1F02	1190	05	132	398	238	404	483	131	259	39
ABERDEEN LAKE	1F01A	1310	26	48	111	100	190	193	48	119	44
MONASHEE PASS	2E01	1370	27	103	292	230	364	364	122	235	39
ADAMS RIVER	1E07	1720	27	208	654	429	582	588	285	433	18
KIRBYVILLE LAKE	2A25	1750	Not Measured			797	-	1160	381	770	24
SILVER STAR MOUNTAIN	2F10	1840	30	193	641	459	650	721	229	481	40
PARK MOUNTAIN	1F03P	1890	01	-	776	534	867	867	384	567	14
ENDERBY	1F04	1900	31	277	930	682	896	928	348	641	36
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											

**COLUMBIA***February 1, 1999***Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER COLUMBIA</b>											
CANOE RIVER	2A01A	910	26	36	74	67	104	140	39	102	24
DOWNIE SLIDE (LOWER)	2A27	980	Not Measured			450	740	740	256	525	19
GLACIER	2A02	1250	27	200	620	460	531	828	241	493	58
FIELD	2A03A	1280	04	65	170	105A	233	233	46	129	59
SUNWAPTA FALLS	AL11	1400	27	79	194	116	202	254	48B	147*	26
VERMONT CREEK	2A19	1520	Not Measured			-	371	574	102	325	30
AZURE RIVER	1E08P	1620	01	279	998	859	788	859	788	824*	2
DOWNIE SLIDE (UPPER)	2A29	1630	Not Measured			920	1096	1422	466	837	18
KICKING HORSE	2A07	1650	04	115	357	177	313	384	153	256	52
KIRBYVILLE LAKE	2A25	1750	Not Measured			797	-	1160	381	770	24
MOUNT REVELSTOKE	2A06P	1830	30	-	1140	819	939	1126	511	775	6
NORTH CLEMINA CREEK	1E13	1860	26	187	581	528	542	796	315	593*	10

FIDELITY MOUNTAIN	2A17	1870	28	328	1067	862	864	1376	480	842	36
BEAVERFOOT	2A11	1890	Not Measured			-	224	249	81	156	32
KEYSTONE CREEK	2A18	1890	Not Measured			467	-	866	290	553	30
GOLDSTREAM	2A16	1920	Not Measured			817	872	1136	460	756	31
BUSH RIVER	2A23	1920	Not Measured			484	574	902	292	584	32
NIGEL CREEK	AL10	1920	27	119	366	244	288	528	94B	301*	26
MOUNT ABBOT	2A14	1980	01	357	1106	816	789	1209	473	836	40
MOLSON CREEK	2A21P	1980	01	-	1005	725	721	1155	417	739	17
SUNBEAM LAKE	2A22	2010	Not Measured			493	602	886	405	641	32
MIRROR LAKE	AL06	2030	28	93	272	160	244	348	104	218*	31
BOW SUMMIT II	AL07A	2080	27	117	345	-	236	480	86B	277*	18
<b>LOWER COLUMBIA</b>											
FERGUSON	2D02	880	28	207	591	400	616	616	251	385	27
BAIRD	WA02	980	27	68	173	152	295	295	20	149*	39
FARRON	2B02A	1220	29	88	248	223	-	346	63	236	25
MONASHEE PASS	2E01	1370	27	103	292	230	364	364	122	235	39
WHATSHAN (UPPER)	2B05	1480	Not Measured			469	759	759	249	447	29
BARNES CREEK	2B06	1620	27	159	489	304	612	612	196	341	31
BARNES CREEK	2B06P	1620	01	-	503	311	566	566	311	421*	6
ST. LEON CREEK	2B08	1800	Not Measured			991	1092	1247	475	834	30
ST. LEON CREEK	2B08P	1800	01	-	1092	-	829	829	524	739	4
KOCH CREEK	2B07	1860	Not Measured			-	708	708	203	476	30
RECORD MOUNTAIN	2B09	1890	30	220	802	453	655	738	117	496	24
EAST CREEK	2D08P	2030	01	-	866	535	611	1012	306	644	18



<b>EAST KOOTENAY</b>											
FERNIE EAST	2C07	1250	30	103	274	190	406	467	51	252	45
MARBLE CANYON	2C05	1520	01	122	330	217	344	505	130	258	50
SULLIVAN MINE	2C04	1550	29	111	281	149	397	397	46	228	53
WEASEL DIVIDE	MT02	1660	29	249	749	488	813	858	185	548*	15
MOUNT JOFFRE	2C16	1750	Not Measured			-	376	439	107	265	26
MORRISSEY RIDGE	2C09Q	1800	01	-	611	416	727	886	346	500	15
MOYIE MOUNTAIN	2C10P	1930	01	132	499	259	-	462	104	259*	18
ALLISON PASS	AL01	1980	26	127	414	279	518	521	251	371*	9
THUNDER CREEK	2C17	2010	Not Measured			-	261	335	69	192	26
FLOE LAKE	2C14	2090	Not Measured			-	620	811	287	531	28
FLOE LAKE	2C14P	2090	01	-	731	401	574	634	238	465	4
HIGHWOOD SUMMIT (BUSH)	AL02	2210	04	127	330	211	320	480	132	274*	19
MOUNT ASSINIBOINE	2C15	2230	Not Measured			-	415	592	170	362	28
SUNSHINE VILLAGE	AL05	2230	28	184	538	298	386	678	231	417*	13
<b>WEST KOOTENAY</b>											
DUNCAN LAKE NO. 2	2D07A	650	28	50	178	110	283	283	60	148*	8
FERGUSON	2D02	880	28	207	591	400	616	616	251	385	27
NELSON	2D04	930	27	111	307	296	508	508	79	276	60
CHAR CREEK	2D06	1310	31	176	514	348	650	650	117	382	33
GRAY CREEK (LOWER)	2D05	1550	26	142	431	278	484	511	127	305	50
KOCH CREEK	2B07	1860	Not Measured			-	708	708	203	476	30

MOUNT TEMPLEMAN	2D09	1860	Not Measured				-	743	1115	452	738	30
GRAY CREEK (UPPER)	2D10	1910	26	203	681	430	672	792	268	518	30	
EAST CREEK	2D08P	2030	01	-	866	535	611	1012	306	644	18	
<b>KETTLE</b>												
FARRON	2B02A	1220	29	88	248	223	-	346	63	236	25	
GOAT CREEK	WA04	1220	28	64	140	127	201	224	20	134*	37	
MONASHEE PASS	2E01	1370	27	103	292	230	364	364	122	235	39	
SUMMIT G.S.	WA05	1400	28	79	185	145	244	244	41	145*	37	
BIG WHITE MOUNTAIN	2E03	1680	31	145	446	328	458	483	183	317	33	
GRANO CREEK	2E07P	1860	01	130	465	304	-	304	304	304*	1	
<b>OKANAGAN</b>												
SUMMERLAND RESERVOIR	2F02	1280	27	76	184	134	238	307	66	175	34	
MC CULLOCH	2F03	1280	28	59	130	143	175	196	57	120	62	
ABERDEEN LAKE	1F01A	1310	26	48	111	100	190	193	48	119	44	
OYAMA LAKE	2F19	1340	30	61	148	145	184	193	31	126	30	
POSTILL LAKE	2F07	1370	29	68	200	142	243	243	73	140	48	
VASEUX CREEK	2F20	1400	01	38	108	106	-	208	51	103	21	
TROUT CREEK	2F01	1430	30	78	184	117	182	292	33A	136	61	
BRENDA MINE	2F18P	1460	01	-	317	212	368	368	168	265	6	
ISLAHT LAKE	2F24	1480	27	114	340	222	314Z	364	134	229	15	
GREYBACK RESERVOIR	2F08	1550	01	78	190	158	244	269	60	155	28	
ISINTOK LAKE	2F11	1680	28	71	158	83	151	307	26	133	33	
MISSION CREEK	2F05P	1780	01	144	495	296	-	443	152	299	27	
GRAYSTOKE LAKE	2F04	1810	27	109	324	-	318	318	297	308*	2	
MOUNT KOBAN	2F12	1810	30	96	252	172	331	373	43	215	32	

WHITEROCKS MOUNTAIN	2F09	1830	03	204	663	333	453	693	135	392	28
SILVER STAR MOUNTAIN	2F10	1840	30	193	641	459	650	721	229	481	40
<b>SIMILKAMEEN</b>											
FREEZEOUT CREEK TRAIL	WA11	1070	29	132	333	244	409	462	13	228*	29
HAMILTON HILL	2G06	1490	06	126	340	220	346	411	104	256	35
MISSEZULA MOUNTAIN	2G05	1550	06	102	277	136	241	284	61	166	32
ISINTOK LAKE	2F11	1680	28	71	158	83	151	307	26	133	33
LOST HORSE MOUNTAIN	2G04	1920	27	78	180	129	216	335	70	160	38
BLACKWALL PEAK	2G03P	1940	01	-	904	521	817	1076	159	597	31
HARTS PASS	WA09	1980	30	358	1041	737	917	1328	246	780*	44
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											

# COASTAL

*February 1, 1999*

## Snow Survey Measurements

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>SOUTH COASTAL</b>											
PALISADE LAKE	3A09P	880	Not Available		700	-	790	700	745*	2	
CHAPMAN CREEK	3A26	1022	Not Available		862	1010	1250	546	878*	5	
CALLAGHAN CREEK	3A20	1040	28	264	804	648	662	879	50	569	15
DOG MOUNTAIN	3A10	1080	29	336	1187	746	966	980A	316	738	15
GROUSE MOUNTAIN	3A01	1100	01	393	1530	842	1056	1273	50	788	49
ORCHID LAKE	3A19	1190	Not Available		1271	1228	1624	408	1185	21	
ORCHID LAKE	3A19P	1190	Not Available		-	-	1844	491	1220	13	
UPPER SQUAMISH RIVER	3A25P	1340	01	-	1510	1144	1196	1406	802	1042	7
NOSTETUKO RIVER	3A22P	1500	01	-	531	427	366	628	203	417*	10
UPPER MOSELY CREEK	3A24P	1650	01	-	314	152	155	509	107	229	10
<b>VANCOUVER ISLAND</b>											

ELK RIVER	3B04	270	01	62	156	0	174	544	0	125	39	
WOLF RIVER (LOWER)	3B19	640	04	166	506	342	358	528	0	263	26	
TENNENT LAKE	3B22	950	Not Available				880	620Z	880	202B	623	10
WOLF RIVER (MIDDLE)	3B18	1070	04	233	690	504	460	742	16	408	27	
FORBIDDEN PLATEAU	3B01	1130	04	462	1640	1152	1085	1538	42	961	43	
JUMP CREEK	3B23P	1160	01	341	1251	746	911	911	206	621*	3	
MOUNT COKELY	3B02A	1190	31	288	1050	-	-	708	234	488	5	
WOLF RIVER (UPPER)	3B17P	1490	01	-	1219	1201	-	1371	501	862	9	
<b>NORTH COASTAL</b>												
TAHTSA LAKE	1B02	1300	28	288	929	890	835	1209	508A	779	44	
TAHTSA LAKE	1B02P	1300	01	-	1079	1030	881	1030	652	861*	5	
BURNT BRIDGE CREEK	3C08P	1330	01	228	713	649	-	649	649	649*	1	
<b>SKAGIT</b>												
SUMALLO RIVER WEST	3D01C	790	07	107	282	248	368	368	0	157*	7	
FREEZEOUT CREEK TRAIL	WA11	1070	29	132	333	244	409	462	13	228*	29	
BEAVER PASS	WA12	1120	29	229	729	541	886	922	36	502*	30	
KLESILKWA	3D03A	1130	Not Measured				140	454	508	0	223	45
HARTS PASS	WA09	1980	30	358	1041	737	917	1328	246	780*	44	
A - SAMPLING PROBLEMS WERE ENCOUNTERED												
B - EARLY OR LATE SAMPLING												
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED												
E - ESTIMATED BASED ON AREAL AVERAGE												

\* - PERIOD OF RECORD AVERAGE

---

**NORTH***February 1, 1999***Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>PEACE</b>											
FORT ST. JOHN A	4A25	690	27	40	80	38	154	154	38	84	25
MACKENZIE A	4A19	700	28	94	208	136	256	305	58	175	26
PACIFIC LAKE	1A11	770	30	219	564	382	544	679	269	425	31
BULLHEAD MOUNTAIN	4A28	790	26	40	71	35	122	149	20	67*	15
PHILIP LAKE	4A13	980	31	102	224	173	336	353	124	199	32
WARE (LOWER)	4A04	980	01	66	105	105	171	286	63	127	30
AIKEN LAKE	4A30P	1040	01	-	185	165	180	330	142	202*	12
TUTIZZI LAKE	4A06	1070	31	84	174	149	213	348	109	181	30
TSAYDAYCHI LAKE	4A12	1160	31	129	309	263	381	507	146	270	31
PINK MOUNTAIN	4A14	1170	01	34	48	-	115	138	25	64	23
KAZA LAKE	1A12	1190	31	100	231	236	290	440	125	229	29
PULPIT LAKE	4A09	1310	01	118	276	274	272	530	190	293	27
FREDRICKSON LAKE	4A10	1310	31	67	146	137	161	309	110	173	30
PULPIT LAKE	4A09P	1310	01	-	299	311	299	405	232	321	8
PINE PASS	4A02P	1400	01	-	823	853	762	1241	762	823	7

TRYGVE LAKE	4A11	1400	01	91	189	246	224	434	183	255	29
SIKANNI LAKE	4C01	1400	01	81	161	166	184	325	81	178	29
PINE PASS	4A02	1430	Not Measured			955	856	1194	411	771	28
MORFEE MOUNTAIN	4A16	1450	30	209	627	655	772	952	323	579	30
LADY LAURIER LAKE	4A07	1460	01	127	296	358	307	635	226	343	27
MOUNT SHEBA	4A18	1490	30	241	691	523	687	918	317	543	29
GERMANSEN (UPPER)	4A05	1500	31	97	217	233	309	371	140	241	30
MOUNT STEARNS	4A21	1500	01	50	77	101	117	196	41	107	24
JOHANSON LAKE	4B02	1540	31	76	150	222	214	355	115	202	28
MONKMAN CREEK	4A20	1550	30	175	437	290	426	775	238	418	22
WARE (UPPER)	4A03	1570	01	77	153	214	180	289	108	178	28
BULLMOOSE CREEK	4A31	1570	05	115	386	317	376	539B	217	360*	11
KWADACHA RIVER	4A27P	1620	01	-	237	-	232	371	139	230	13
<b>SKEENA/NASS</b>											
TERRACE A	4B13A	180	27	58	170	54	274	274	0	150	19
BEAR PASS	4B11A	460	30	164	467	400	412	821	297	627	15
NINGUNSAW PASS	4B10	690	28	118	296	210	298	603	171	308	24
KAZA LAKE	1A12	1190	31	100	231	236	290	440	125	229	29
LU LAKE	4B15P	1310	01	82	206	169	-	169	169	169*	1
TSAI CREEK	4B17P	1360	01	218	773	791	-	791	791	791*	1
KIDPRICE LAKE	4B01	1370	28	198	649	635	748	894B	440	607	41
TRYGVE LAKE	4A11	1400	01	91	189	246	224	434	183	255	29
HUDSON BAY MTN.	4B03A	1480	29	121	357	342	477	665	221	361	27



SHEDIN CREEK	4B16P	1480	01	166	559	619	600	693	600	637*	3
JOHANSON LAKE	4B02	1540	31	76	150	222	214	355	115	202	28
<b>LIARD</b>											
FORT NELSON A	4C05	380	31	41	67	43	77	128	43	86	33
DEASE LAKE	4C03	820	30	36	96	52	102	202	36	104	34
DEADWOOD RIVER	4C09P	1300	01	-	104	61	73	207	61	115*	5
CASSIAR	4C04	1390	Not Measured			271	168	452	137	234	34
SIKANNI LAKE	4C01	1400	01	81	161	166	184	325	81	178	29
<b>STIKINE/ TAKU</b>											
FORREST-KERR CREEK	4D08P	560	01	-	341	338	360	570	338	437*	7
NINGUNSAW PASS	4B10	690	28	118	296	210	298	603	171	308	24
DEASE LAKE	4C03	820	30	36	96	52	102	202	36	104	34
ISKUT	4D02	1000	28	49	88	59	75	162	36	88	25
KINASKAN LAKE	4D11P	1020	01	-	168	247	155	516	155	292*	8
TUMEKA CREEK	4D10P	1220	01	-	274	402	274	744	274	449	9
WADE LAKE	4D14P	1370	01	-	186	238	-	410	125	295	7
UPPER STIKINE	4D13P	1450	Not Measured			344	253	552	253	307	9

**YUKON**

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE

Banner

**March 1, 1999**

Fraser  
Basin  
Snow

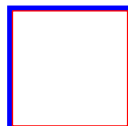
[Fraser Basin Snow Survey Measurements](#)

### **UPPER FRASER AND NECHAKO**

Precipitation and mean temperatures throughout the upper Fraser and Nechako basins were above normal during February. The total precipitation measured at Environment Canada weather stations in the upper Fraser since the beginning of November is 14% above normal.

The regional snow water equivalent index for the upper Fraser is now estimated to be 21% above normal, slightly higher than a month ago. In the Nechako Reservoir basin the index has increased from 11% above normal a month ago to 23% above normal at this date. The snowpack, although above normal, is well below previously recorded amounts.

The mean flow in the Fraser River at Marguerite continued to be below normal during February



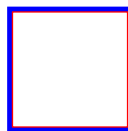
[Data Graphs](#)

### **MIDDLE AND LOWER FRASER**

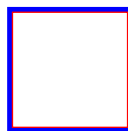
Mean temperatures about 3°C above normal and above normal precipitation during February have increased the snowpack in the middle Fraser and lower Fraser basins to record levels. Several long term snow stations report their highest ever March 1 totals - e.g. Mount Timothy (1C17) in the headwaters of the Williams Lake River which has a 36-year record at this date and Duffey Lake (1C28) between Lillooet and Pemberton which has a 20-year March 1 record.

The flow in the Fraser River at Hope was below normal during February, continuing the trend noted all winter. This is probably a result of the warm dry weather last summer. River levels during the freshet are largely determined by the weather patterns during the main mountain snowmelt period in May and June. However, with the very high snowpacks in the Thompson, middle and lower Fraser basins and above normal snowpacks in the upper Fraser there is a very real possibility that rivers could reach damaging levels unless the snowmelt is gradual.

The River Forecast Centre will continue to monitor the situation as the season progresses.

[Data Graphs](#)

## NORTH AND SOUTH THOMPSON

[Data Graphs](#)

February saw a continuation of the relatively mild and wet weather that has characterized the winter. Cumulative precipitation measured at Environment Canada weather stations since the beginning of November remains above normal.

The precipitation has caused considerably greater than normal accumulations during February with the result that most snowcourses in the North Thompson report record high water equivalents for March 1st. For example, Adams River (1E07) has 115 mm more water equivalent than its previous recorded highest reading in March 1974. Fewer record readings are reported in the South Thompson River basin, but the overall snowpack is one of the largest ever recorded at this time of year. Regional snowpack indices for the North and South Thompson basins are estimated to be 46 and 48% above normal for this date, respectively.

With record level snowpacks, there is an increased risk of damaging flooding occurring on the main stem rivers and lakes in the basin. However, the peak flows are dependent to a large extent on the weather patterns during the main melt period in May and June. A gradual melt would result in high river flows, but probably below damaging levels while a rapid melt could create problems.

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



[Information Disclaimer and Copyright Notice](#)

Banner

**March 1, 1999**

Columbia  
Basin  
Snow

[Columbia Basin Snow Survey Measurements](#)

### UPPER AND LOWER COLUMBIA

Temperatures of about 2°C above normal and precipitation that was a third greater than normal have resulted in a snowpack that continues to be about 35% above normal for this date. Snowpacks in the upper Columbia are above normal while those in the lower Columbia are at record-setting levels. For example, both Barnes Creek (2B06) and St. Leon Creek (2B08) which have 37 and 30-year records for this sampling period report record high water equivalents, surpassing the previous high marks set in 1972.

The natural flow as represented by the Columbia River at Donald was slightly above normal during February.

Much of the main stem Columbia River is controlled by large dams and should not be subject to damaging flows. However, uncontrolled sections and tributary creeks could see very high flows this spring if the snowmelt is rapid.

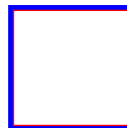
Data  
Graphs

[Data Graph](#)

### EAST AND WEST KOOTENAY

Snowpacks in the Kootenays have accumulated at a greater than normal rate during February. The regional snow water equivalent index has increased from 37% above normal last month to 43% above normal at this measuring period. This is about 20% higher than was reported at this time in 1997, a high runoff year. A few long term stations report new record high readings including the relatively low level Ferguson (2D02) which has a 47-year record of measurements for March 1.

The natural flow as indicated by the Kootenay River at Fort Steele was close to normal during February. The well above normal snowpack means that uncontrolled snowmelt-fed streams throughout the region are vulnerable to flood flows if there is a rapid melt this spring.



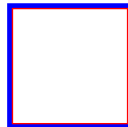
[Data Graphs](#)

## OKANAGAN, SIMILKAMEEN AND KETTLE

Mean monthly temperatures over 3°C above normal in February, combined with near normal precipitation have kept the snowpack throughout the region at well above normal levels for this date. Relatively few long-term stations set new records, but Whiterocks Mtn. (2F09) which has a 43-year record reports 24 mm of water more than has previously been recorded at this date.

In the Similkameen basin, the snowpack is estimated to be about 43% above normal, similar to that reported a month ago. Most long term courses have lower water equivalents than those reported in 1972 which produced the flood of record on this river, but are higher than those which occurred two years ago. A rapid melt could result in high flows throughout the basin.

Inflow to Okanagan Lake this spring is expected to be about one third greater than normal and the lake is being drawn down in preparation for this. It is anticipated that there will be sufficient storage that the lake can be regulated within its normal levels.



[Data Graphs](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



[Information Disclaimer and Copyright Notice](#)

Banner

**March 1, 1999**

**Snow  
Survey  
Measurem**

[Coastal Basin Snow Survey Measurements](#)

### **SOUTH COASTAL AND VANCOUVER ISLAND**

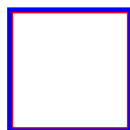
February was a big month for rain and snowfall in the South Coast region, and the March 1 snowpack is very much above normal. Most snow courses report record water content, including Grouse Mountain (3A01) with 48 years of March 1 samples. Total precipitation for the winter months continues to be well above normal.

On Vancouver Island, precipitation and snow data continues to follow the same trends as the South Coast. Inclement weather has prevented sampling at most or all Vancouver Island snow courses for the March 1 sample period, but other information from ski areas, highways, etc. clearly indicates a very large snowpack. Precipitation at weather stations on the Island was more than double the normal for February, and the winter total is very high.

It is interesting to note that a number of the snow pillow stations in the South Coast and Vancouver Island region are not functioning properly. In some cases this is because the snow depths are much greater than ever experienced at these sites and solar panels and sensors have been buried.

Mean monthly temperatures for the South Coast and Vancouver Island were 0.2°C above normal for February.

Regional runoff as represented by inflow to Upper Campbell Lake on Vancouver Island was just above normal for February.



[Data Graphs](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)

Banner

**March 1, 1999**

Snow  
Survey  
Measureme

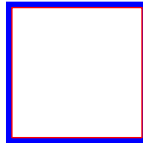
[Northern Basins Snow Survey Measurements](#)

### **NORTHEASTERN**

Most snow courses in the Peace River basin had greater than normal accumulation in February. The March 1 water contents are above normal in the south part of the basin, and below normal in the northern part. The Liard basin has relatively few stations sampled, mostly around the perimeter of the basin, and based on these, the overall snowpack appears to be near normal.

Monthly precipitation for February was well above normal in the Peace and below normal in the Liard. February mean monthly temperatures for northeastern BC averaged 1.4°C above normal.

Williston Lake had 122% of normal February inflow, continuing the above average flows of the last two months.



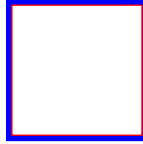
[Data Graphs](#)

### **NORTHWESTERN**

In the Skeena/Nass region, snow survey stations vary from above normal to below normal, except for the low elevation snow course at Terrace. In the Stikine, water contents are lower than normal for March 1. The low elevation snowcourse at Speel River has a very high reading, similar to Terrace. Farther north in the Yukon River basin, water equivalents for March 1 are well below normal.

Monthly precipitation measured at weather stations in northwestern BC during February was highly variable as compared to normal, and the monthly mean temperatures in northwestern BC averaged 0.3°C below normal monthly values.

Flow in the Skeena River at Usk was 85% of normal for February, continuing the below normal trend of recent months.



[Data Graphs](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



le>



**FRASER**

March 1, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER FRASER</b>											
PRINCE GEORGE A	1A10	690	23	59	176	50	188	296	33	142	37
PACIFIC LAKE	1A11	770	28	221	749	428	677	832	277	544	36
BURNS LAKE	1A16	800	04	67	178	130	240	240	60	136	27
CANOE RIVER	2A01A	910	26	59	139	64	119	251	32	133	58
PHILIP LAKE	4A13	980	26	120	334	222	352	382	152	249	35
HEDRICK LAKE	1A14	1100	28	236	852	463	729	954	330	588	31
BIRD CREEK	1A23	1180	26	60	160	100	232	232	100	140*	9
KAZA LAKE	1A12	1190	26	116	306	275	326	478	186	282	33
LU LAKE	4B15	1300	23	89	240	206	406	406	172	274	20
FORFAR CREEK (UPPER)	1A24	1410	03	175	546	472	648	648	408	509*	5
EQUITY MINE	4B14	1420	23	104	308	314	514	514	234	302	21
MOUNT SHEBA	4A18	1490	28	263	926	601	901	1037	394	697	28
BARKERVILLE	1A03	1520	28	129	433	206	-	467	191	323	47
BARKERVILLE	1A03P	1520	01	-	443	225	375	479	194	324	20
MC BRIDE (UPPER)	1A02	1580	25	140	452	249	362	594	182	389	45
KNUDSEN LAKE	1A15	1580	28	236	828	570	679	1098	422	772	28
NARROW LAKE	1A21	1650	26	266	1052	649	939	1300	419	739	24
REVOLUTION CREEK	1A17P	1690	01	-	810	496	654	1119	496	759	13
LONGWORTH (UPPER)	1A05	1740	28	217	822	576	870	1104	307	637	41

DOME MOUNTAIN	1A19	1820	25	215	822	472	689	981	351	680	25
MARMOT JASPER	AL12	1830	01	102	264	144	213	314	111	206*	15
YELLOWHEAD	1A01	1860	25	198	627	313	414	660	185	438	28
YELLOWHEAD	1A01P	1860	01	-	720	368	439	439	368	404*	2
HOLMES RIVER	1A18	1900	25	209	716	474	571	910	321	642	25
<b>NECHAKO</b>											
SKINS LAKE	1B05	880	25	48	116	102	168	226	54	119	35
TAHTSA LAKE	1B02	1300	25	409	1381	994	1019	1405	571	980	47
TAHTSA LAKE	1B02P	1300	01	-	1512	1143	1158	1198	661	1032*	5
KIDPRICE LAKE	4B01	1370	25	267	831	673	838	1101	429	773	47
MOUNT PONDOSY	1B08P	1400	01	-	899	701	799	887	405	706*	6
MOUNT WELLS	1B01	1490	26	144	497	392	555	886	277	455	46
MOUNT WELLS	1B01P	1490	01	-	482	430	607	607	396	493	6
NUTLI LAKE	1B07	1490	26	150	499	384	511	651	304	504*	8
MOUNT SWANNELL	1B06	1620	26	105	336	186	323	446	186	270*	10
<b>MIDDLE FRASER</b>											
PUNTZI MOUNTAIN	1C22	940	01	29	52	18	66	128	0	62	28
BROOKMERE	1C01	980	03	108	260	183	289	351	53	200	54
NAZKO	1C08	1070	03	43	112	25	107	155	0	83	22
BIG CREEK	1C21	1140	25	22	44	30	40	112	0	54	27
GRANITE MOUNTAIN	1C33	1150	26	77	207	94	254	254	94	181*	6
DUFFY LAKE	1C28	1200	28	240	762	418	556	606	194	442	20
PAVILION	1C06	1230	05	29	70	60Z	89	168	0	82	42
LAC LE JEUNE (LOWER)	1C07	1370	24	59	145	94	163	244	20	112	40
CONANT LAKE	1C31	1370	27	83	236	176	267	267	102	196	16
BRIDGE GLACIER (LOWER)	1C39	1400	02	296	954	588	476	620	476	569*	4
DEADMAN RIVER	1C32	1430	28	49	150	62	110	170	62	112	15
BRALORNE	1C14	1450	02	111	297	150	212	363	0	166	35
BONAPARTE LAKE	1C34	1450	25	121	360	192	312	312	192	272*	6

SHOVELNOSE MOUNTAIN	1C29	1450	27	123	398	229	309	309	104	258	18
BOSS MOUNTAIN MINE	1C20P	1460	01	200	735	435	604	619	435	503	5
LAC LE JEUNE (UPPER)	1C25	1460	24	77	210	137	213	213	13A	141	26
BRENDA MINE	2F18	1460	24	114	334	238	337	495	130	292	30
BRENDA MINE	2F18P	1460	01	-	431	263	412	427	220	329	6
HIGHLAND VALLEY	1C09A	1510	25	51	118	87	149	229	25A	95	33
BARKERVILLE	1A03	1520	28	129	433	206	-	467	191	323	47
BARKERVILLE	1A03P	1520	01	-	443	225	375	479	194	324	20
HORSEFLY MOUNTAIN	1C13A	1550	28	176	582	300	536	624	238	379	27
GNAWED MOUNTAIN	1C19	1580	25	63	150	102	147	259	15	123	31
GREEN MOUNTAIN	1C12	1630	Not Measured			-	514	909	196	554	34
MOUNT TIMOTHY	1C17	1660	24	137	468	157	362	439	141	285	36
YANKS PEAK EAST	1C41P	1670	01	224	900	611	818	818	611	715*	2
PENFOLD CREEK	1C23	1680	26	315	1126	782	970	1132	494	816	24
YANKS PEAK	1C24	1710	26	247	920	544	755	964	366	653	25
GREEN MOUNTAIN	1C12P	1780	01	-	1259	786	704	923	690	798*	5
MCGILLIVRAY PASS	1C05	1800	02	261	830	550	574	1016	222	512	47
MISSION RIDGE	1C18P	1850	01	-	860	411	500	866	269	529	12
DOWNTON LAKE (UPPER)	1C38	1890	02	359	1250	780	662	964	662	834*	4
TYAUGHTON CREEK (NORTH)	1C40	1950	02	255	916	368	416	420	368	398*	4
PAVILION MOUNTAIN	1C36	1960	Not Measured			-	248	248	197	225*	3
BRALORNE (UPPER)	1C37	1980	02	273	944	448	612	748	448	611*	4
<b>LOWER FRASER</b>											

WOLVERINE CREEK	1D13	300	01	19	92	0	232	232	0	139	23
SUMMALLO RIVER WEST	3D01C	790	04	126	402	210	442	442	79	192*	7
BROOKMERE	1C01	980	03	108	260	183	289	351	53	200	54
DISAPPOINTMENT LAKE	1D18P	1040	Not Available			-	1284	1746	1284	1515*	2
CALLAGHAN CREEK	3A20	1040	27	397	1470A	772	720	1260	200	853	21
DICKSON LAKE	1D16	1070	Not Measured			1330	-	1358	542	1030*	7
DOG MOUNTAIN	3A10	1080	26	538	2146	931	1170	1197	345	1011	15
BEAVER PASS	WA12	1120	26	381	1298	632	924	1240	30	648*	50
KLESILKWA	3D03A	1130	26	161	492	221	508	759	0	283	48
DUFFEY LAKE	1C28	1200	28	240	762	418	556	606	194	442	20
STAVE LAKE	1D08	1210	02	660	2500A	1511	1190A	2047A	353	1335	32
WAHLEACH LAKE	1D09	1400	26	244	782	533	604	1072	86	521	32
WAHLEACH LAKE	1D09P	1400	Not Measured			850	1213	1213	646	810*	7
NAHATLATCH RIVER	1D10	1520	02	625	2380A	1230	975	1897	450	1193	30
EASY PASS	WA13	1580	Not Available			-	2388	2913	478	1680*	35
CHILLIWACK RIVER	1D17P	1600	Not Measured			1096	1567	1567	827	1338	6
GREAT BEAR	1D15P	1660	Not Measured			1393	1669	1752	708	1254	8
TENQUILLE LAKE	1D06	1680	01	433	1568	1092	940	1539	410	973	45
<b>NORTH THOMPSON</b>											
BLUE RIVER	1E01B	670	02	123	338	210	411	411	210	291	16
KNOUFF LAKE	1E05	1200	28	59	145	98	166	284	36	134	40
COOK FORKS	1E06	1390	28	338	1180A	625	880	1288	453	782	36
BOSS MOUNTAIN MINE	1C20P	1460	01	200	735	435	604	619	435	503	5
MOUNT COOK	1E02A	1580	27	419	1550A	989	1142	1311	573	1024	25
AZURE RIVER	1E08	1620	26	361	1274	935	911	1262	475	875	25
AZURE RIVER	1E08P	1620	01	336	1335	1001	923	1001	923	962*	2
ADAMS RIVER	1E07	1720	23	241	892	513	650	777	262	564	28
KOSTAL LAKE	1E10P	1770	01	-	1019	715	822	887	519	721	14

TROPHY MOUNTAIN	1E03A	1860	28	214	778	440	566	619	281	447	24
NORTH CLEMINA CREEK	1E13	1860	25	246	858	619	554	899	355	691*	10
<b>SOUTH THOMPSON</b>											
ANGLEMONT	1F02	1190	01	126	416	222	494	635	200	332	42
ABERDEEN LAKE	1F01A	1310	23	55	139	119	218	231	51	144	45
MONASHEE PASS	2E01	1370	26	121	378	279	-	442	149	301	39
BOULEAU LAKE	2F21	1400	23	114	352	216	360	432A	165	296	28
ADAMS RIVER	1E07	1720	23	241	892	513	650	777	262	564	28
KIRBYVILLE LAKE	2A25	1750	01	382	1476	937	995	1342	526	935	25
SILVER STAR MOUNTAIN	2F10	1840	28	236	844	549	764	912	361	607	40
PARK MOUNTAIN	1F03P	1890	01	-	968	610	1021	1021	559	707	14
ENDERBY	1F04	1900	26	317	1200	811	1028	1160	523	831	35
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											

# COLUMBIA

*March 1, 1999*

## Snow Survey Measurements

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER COLUMBIA</b>											
CANOE RIVER	2A01A	910	26	59	139	64	119	251	32	133	58
DOWNIE SLIDE (LOWER)	2A27	980	04	294	1018	464	792	852	378	665	21
GLACIER	2A02	1250	24	241	780	527	692	952	251	633	59
FIELD	2A03A	1280	01	72	184	108	248	248	53	158	59
SUNWAPTA FALLS	AL11	1400	03	104	262	140	208	277	79	172*	27
VERMONT CREEK	2A19	1520	26	196	598	307	446	643	152	409	32
AZURE RIVER	1E08	1620	26	361	1274	935	911	1262	475	875	25
AZURE RIVER	1E08P	1620	01	336	1335	1001	923	1001	923	962*	2
DOWNIE SLIDE (UPPER)	2A29	1630	04	494	2120	1080	-	1524	666	1048	19
KICKING HORSE	2A07	1650	01	127	380	230	382	462	178	313	52
KIRBYVILLE LAKE	2A25	1750	01	382	1476	937	995	1342	526	935	25
MOUNT REVELSTOKE	2A06P	1830	01	-	1487	918	1091	1254	537	997	5
NORTH CLEMINA CREEK	1E13	1860	25	246	858	619	554	899	355	691*	10

FIDELITY MOUNTAIN	2A17	1870	26	388	1401	943	1126	1703	534	1068	36
BEAVERFOOT	2A11	1890	26	83	206	126	258	333	94	200	37
KEYSTONE CREEK	2A18	1890	04	338	1277	559	-	1013	366	690	30
GOLDSTREAM	2A16	1920	01	363	1288	866	950	1351	553	943	35
BUSH RIVER	2A23	1920	04	259	1033	552	641	1078	281	712	31
NIGEL CREEK	AL10	1920	02	179	607	265	302	655	135	367*	27
MOUNT ABBOT	2A14	1980	28	402	1424	886	1040	1448	508	1046	39
MOLSON CREEK	2A21P	1980	Not Measured			770	810	1109	437	889	16
SUNBEAM LAKE	2A22	2010	04	303	1117	572	747	1090	389	777	31
MIRROR LAKE	AL06	2030	24	102	312	201	318	483	124	260*	32
BOW SUMMIT II	AL07A	2080	24	140	447	239	320	533	124	321*	19
<b>LOWER COLUMBIA</b>											
FERGUSON	2D02	880	25	249	796	437	668	692	332	521	47
BAIRD	WA02	980	24	91	249	188	368	368	0	182*	40
FARRON	2B02A	1220	24	120	323	295	405	450	79	301	26
MONASHEE PASS	2E01	1370	26	121	378	279	-	442	149	301	39
WHATSHAN (UPPER)	2B05	1480	26	263	918	579	-	881	340	573	37
BARNES CREEK	2B06	1620	26	178	634	384	-	605	251	430	37
BARNES CREEK	2B06P	1620	01	-	623	330	682	682	330	485*	5
ST. LEON CREEK	2B08	1800	26	428	1656	1001	-	1590	658	1052	30
ST. LEON CREEK	2B08P	1800	01	-	1392	900	1020	1020	554	969	5
KOCH CREEK	2B07	1860	26	280	996	620	-	846	269	605	35
RECORD MOUNTAIN	2B09	1890	27	308	1136	647	798	900	147	629	24
EAST CREEK	2D08P	2030	01	-	1110	618	698	1167	312	786	18

<b>EAST KOOTENAY</b>											
KISHENEHN	MT01	1190	25	81	241	157	320	399	36	213*	53
FERNIE EAST	2C07	1250	02	124	370	216	424	584	61	333	48
UPPER ELK RIVER	2C06	1340	25	57	150	74	192	330	3A	136	49
SINCLAIR PASS	2C01	1370	01	43	109	74	193	262	48	131	52
MARBLE CANYON	2C05	1520	28	131	389	250	382	579	152	323	52
BRUSH CREEK TIMBER	MT03	1520	25	79	193	107	249	432	86	227*	47
SULLIVAN MINE	2C04	1550	26	130	399	164	402	465	53	279	53
WEASEL DIVIDE	MT02	1660	24	269	904	564	909	1257	254	747*	40
KIMBERLEY (MIDDLE) V O R	2C12	1680	25	117	309	144	357	386	97	259	30
MOUNT JOFFRE	2C16	1750	26	134	434	252	-	551	140	316	27
MORRISSEY RIDGE	2C09Q	1800	01	-	739	473	787	1074	414	626	15
MOYIE MOUNTAIN	2C10P	1930	01	153	653	296	-	579	149	320*	19
ALLISON PASS	AL01	1980	02	157	556	284	559	625	267	424*	16
THUNDER CREEK	2C17	2010	26	108	326	139	320	378	91	230	29
FLOE LAKE	2C14	2090	26	264	910	454	710	993	319	636	29
FLOE LAKE	2C14P	2090	01	-	889	435	660	716	254	560	4
KIMBERLEY (UPPER) V O R	2C11	2140	25	179	540	234	499	696	163	413	30
HIGHWOOD SUMMIT (BUSH)	AL02	2210	23	126	361	234	353	455	150	330*	20
MOUNT ASSINIBOINE	2C15	2230	26	204	644	328	504	680	213	434	29
SUNSHINE VILLAGE	AL05	2230	24	198	696	345	488	770	254	492*	28



<b>WEST KOOTENAY</b>											
DUNCAN LAKE NO. 2	2D07A	650	26	63	209	72	263	263	72	143*	8
FERGUSON	2D02	880	25	249	796	437	668	692	332	521	47
NELSON	2D04	930	26	160	482	345	558	558	140	355	59
SANDON	2D03	1070	26	143	475	302	403	434	239	343	22
CHAR CREEK	2D06	1310	28	245	752	401	698	754	234	487	31
BUNCHGRASS MEADOW	WA01	1520	Not Available			-	-	843	427	581*	13
GRAY CREEK (LOWER)	2D05	1550	23	164	518	324	577	663	201	390	50
ARROW CREEK	2D11	1620	02	282	991	600	897	897	442	616	19
KOCH CREEK	2B07	1860	26	280	996	620	-	846	269	605	35
MOUNT TEMPLEMAN	2D09	1860	26	349	1308	744	-	1534	516	909	30
GRAY CREEK (UPPER)	2D10	1910	23	242	862	484	840	955	356	647	30
EAST CREEK	2D08P	2030	01	-	1110	618	698	1167	312	786	18
<b>KETTLE</b>											
TRAPPING CREEK (LOWER)	2E05	930	28	50	150	98	178	224	44	128	33
FARRON	2B02A	1220	24	120	323	295	405	450	79	301	26
GOAT CREEK	WA04	1220	24	84	206	173	226	300	0	163*	36
CARMI	2E02	1250	28	55	152	154	196	274	56	147	36
TRAPPING CREEK (UPPER)	2E04A	1350	27	79	250	182	252	252	120	200	16
MONASHEE PASS	2E01	1370	26	121	378	279	-	442	149	301	39
SUMMIT G.S.	WA05	1400	24	102	251	196	277	305	63	190*	35
BIG WHITE MOUNTAIN	2E03	1680	27	186	590	396	530	676	213	403	33
GRANO CREEK	2E07P	1860	01	167	634	439	-	439	439	439*	1

<b>OKANAGAN</b>											
SUMMERLAND RESERVOIR	2F02	1280	23	90	251	154	279	381	97	213	38
MC CULLOCH	2F03	1280	25	64	169	152	193	249	71	156	59
ABERDEEN LAKE	1F01A	1310	23	55	139	119	218	231	51	144	45
OYAMA LAKE	2F19	1340	27	70	191	150	241	241	73	151	29
POSTILL LAKE	2F07	1370	26	78	230	165	272	274	98	179	49
BOULEAU LAKE	2F21	1400	23	114	352	216	360	432A	165	296	28
VASEUX CREEK	2F20	1400	01	46	120	124	176	284	71A	139	28
TROUT CREEK	2F01	1430	25	82	238	140	209	335	55	165	59
BRENDA MINE	2F18	1460	24	114	334	238	337	495	130	292	30
BRENDA MINE	2F18P	1460	01	-	431	263	412	427	220	329	6
ISLAHT LAKE	2F24	1480	24	145	498	318	400	400	214	297	17
GREYBACK RESERVOIR	2F08	1550	01	88	244	171	306	312	91	195	32
ESPERON CR (UPPER)	2F13	1650	28	167	554	296	490	635	157	364	30
ISINTOK LAKE	2F11	1680	24	79	211	108	169	358	53	161	34
MACDONALD LAKE	2F23	1740	24	175	586	329	436	512	170	377	22
MUTTON CREEK NO. 1	WA07	1740	24	196	589	399	396	571	0	305*	55
MISSION CREEK	2F05P	1780	01	164	608	338	-	610	213	380	27
GRAYSTOKE LAKE	2F04	1810	01	136	440	214	416	605	148	337	21
MOUNT KOBAU	2F12	1810	28	137	411	324Z	360	488	61	265	33
WHITEROCKS MOUNTAIN	2F09	1830	26	245	809	454	582	787	180	489	43
SILVER STAR MOUNTAIN	2F10	1840	28	236	844	549	764	912	361	607	40
<b>SIMILKAMEEN</b>											

BROOKMERE	1C01	980	03	108	260	183	289	351	53	200	54
FREEZEOUT CREEK TRAIL	WA11	1070	27	178	510	256	414	615	15	272*	50
LIGHTNING LAKE	3D02	1220	28	164	497	277	422	478	51	258	25
HAMILTON HILL	2G06	1490	01	136	403	222	396	676	127	336	37
MISSEZULA MOUNTAIN	2G05	1550	27	100	300	156	259	363	76	223	35
ISINTOK LAKE	2F11	1680	24	79	211	108	169	358	53	161	34
LOST HORSE MOUNTAIN	2G04	1920	Not Measured			167	252	508	92	193	37
BLACKWALL PEAK	2G03P	1940	01	-	1200	578	892	1323	213	755	31
HARTS PASS	WA09	1980	25	444	1369	866	1069	1636	312	943*	48

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE

**COASTAL***March 1, 1999***Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>SOUTH COASTAL</b>											
PALISADE LAKE	3A09	880	Not Measured		1148	1281	1961A	95	1199	44	
PALISADE LAKE	3A09P	880	Not Available		-	-	-	-	-	0	
CHAPMAN CREEK	3A26	1022	Not Available		1412	-	1412	662	1041*	5	
CALLAGHAN CREEK	3A20	1040	27	397	1470A	772	720	1260	200	853	21
DOG MOUNTAIN	3A10	1080	26	538	2146	931	1170	1197	345	1011	15
GROUSE MOUNTAIN	3A01	1100	24	581	2320A	1152	1320	2098	143	1023	48
ORCHID LAKE	3A19	1190	02	740	2980A	1690	1639	2370A	444	1577	24
ORCHID LAKE	3A19P	1190	01	-	3093	-	-	2238	805	1573*	12
UPPER SQUAMISH RIVER	3A25P	1340	01	-	2301	1564	1313	1853	840	1359	9
NOSTETUKO RIVER	3A22P	1500	01	-	769	524	393	741	203	514*	10
UPPER MOSELY CREEK	3A24P	1650	01	-	378	152	155	555	98	275	10

<b>VANCOUVER ISLAND</b>											
ELK RIVER	3B04	270	02	78	300	0	0	546	0	168	38
WOLF RIVER (LOWER)	3B19	640	05	300	1064	494	332	660	0	355	28
TENNENT LAKE	3B22	950	Not Available			1200	742Z	1200	290A	740	14
UPPER THELWOOD LAKE	3B10	980	05	660	2438A	1560A	1004	2083	281	1221	38
WOLF RIVER (MIDDLE)	3B18	1070	05	405	1344	774	430E	864A	71	539	28
FORBIDDEN PLATEAU	3B01	1130	05	715	2730A	1660A	1180	2225	260	1283	43
JUMP CREEK	3B23P	1160	01	-	2016	1174	1196	1196	304	891*	3
MOUNT COKELY	3B02A	1190	Not Measured			898	474Z	1016	178	716	18
SNO-BIRD LAKE	3B16	1400	Not Available			1397	1124	1758	188	1073	32
WOLF RIVER (UPPER)	3B17P	1490	Not Measured			1777	939	1777	512	1140	11
<b>NORTH COASTAL</b>											
WEDEENE RIVER SOUTH	3C07	300	26	255	817	207	507	547	207	364	15
TAHTSA LAKE	1B02	1300	25	409	1381	994	1019	1405	571	980	47
TAHTSA LAKE	1B02P	1300	01	-	1512	1143	1158	1198	661	1032*	5
BURNT BRIDGE CREEK	3C08P	1330	01	-	889	683	-	683	683	683*	1
<b>SKAGIT</b>											
SUMALLO RIVER WEST	3D01C	790	04	126	402	210	442	442	79	192*	7
FREEZEOUT CREEK TRAIL	WA11	1070	27	178	510	256	414	615	15	272*	50

BEAVER PASS	WA12	1120	26	381	1298	632	924	1240	30	648*	50
KLESILKWA	3D03A	1130	26	161	492	221	508	759	0	283	48
LIGHTNING LAKE	3D02	1220	28	164	497	277	422	478	51	258	25
HARTS PASS	WA09	1980	25	444	1369	866	1069	1636	312	943*	48

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE

**NORTH***March 1, 1999***Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>PEACE</b>											
FORT ST. JOHN A	4A25	690	28	56	122	62	182	191	52	111	25
MACKENZIE A	4A19	700	27	111	302	156	264	345	130	217	26
PACIFIC LAKE	1A11	770	28	221	749	428	677	832	277	544	36
BULLHEAD MOUNTAIN	4A28	790	28	55	112	66	142	142	12	79*	15
PHILIP LAKE	4A13	980	26	120	334	222	352	382	152	249	35
WARE (LOWER)	4A04	980	27	68	149	130	202	246	97	155	35
MC LEOD LAKE	4A01	980	28	103	292	170	364	364	98	204	39
AIKEN LAKE	4A30P	1040	01	-	237	191	317	363	162	248*	12
TUTIZZI LAKE	4A06	1070	26	112	263	197	234	386	140	225	35
TSAYDAYCHI LAKE	4A12	1160	26	152	432	323	423	540	166	339	35
PINK MOUNTAIN	4A14	1170	02	43	71	68	121	160	40	74	35
KAZA LAKE	1A12	1190	26	116	306	275	326	478	186	282	33
PULPIT LAKE	4A09	1310	27	138	353	334	350	531	233	358	34
PULPIT LAKE	4A09P	1310	01	-	381	341	378	448	326	366	8
FREDRICKSON LAKE	4A10	1310	26	81	182	154	202	315	129	212	34

PINE PASS	4A02P	1400	01	-	1027	920	835	1485	835	963	7
TRYGVE LAKE	4A11	1400	26	113	269	306	274	453	211	314	34
SIKANNI LAKE	4C01	1400	27	89	210	195	219	335	107	223	33
PINE PASS	4A02	1430	27	338	1160	996	1095	1502	480	969	35
MORFEE MOUNTAIN	4A16	1450	27	251	880	670	904	1166	312	717	31
LADY LAURIER LAKE	4A07	1460	27	149	417	449	375	662	255	425	32
MOUNT SHEBA	4A18	1490	28	263	926	601	901	1037	394	697	28
GERMANSEN (UPPER)	4A05	1500	26	129	360	286	344	520	174	300	38
MOUNT STEARNS	4A21	1500	27	55	105	134	123	227	58	129	24
JOHANSON LAKE	4B02	1540	26	93	216	263	232	368	148	250	35
MONKMAN CREEK	4A20	1550	28	182	594	375	521	925	290	540	17
WARE (UPPER)	4A03	1570	27	88	210	247	205	360	114	213	38
BULLMOOSE CREEK	4A31	1570	04	184	488	358	472	663	273	466*	11
KWADACHA RIVER	4A27P	1620	01	-	308	-	265	405	195	284	14
<b>SKEENA/NASS</b>											
TERRACE A	4B13A	180	01	91	342	0	240	407	0	179	17
BEAR PASS	4B11A	460	02	181	640	416	543	824	416	751	15
NINGUNSAW PASS	4B10	690	Not Available			232	359	629	232	400	24
MCKENDRICK CREEK	4B07	1050	03	109	279	230	381	391	177	265	31
TACHEK CREEK	4B06	1140	26	85	219	164	330	330	117	191	31
KAZA LAKE	1A12	1190	26	116	306	275	326	478	186	282	33
LU LAKE	4B15	1300	23	89	240	206	406	406	172	274	20
LU LAKE	4B15P	1310	01	88	244	199	-	199	199	199*	1



TSAI CREEK	4B17P	1360	01	263	1054	919	-	919	919	919*	1
KIDPRICE LAKE	4B01	1370	25	267	831	673	838	1101	429	773	47
TRYGVE LAKE	4A11	1400	26	113	269	306	274	453	211	314	34
EQUITY MINE	4B14	1420	23	104	308	314	514	514	234	302	21
CHAPMAN LAKE	4B04	1460	03	148	461	415	536	691	268	396	34
HUDSON BAY MTN.	4B03A	1480	04	141	432	414	568	719	287	449	27
MOUNT CRONIN	4B08	1480	03	178	541	516	599	869	348	521	30
SHEDIN CREEK	4B16P	1480	01	176	683	686	750	904	686	780*	3
JOHANSON LAKE	4B02	1540	26	93	216	263	232	368	148	250	35
<b>LIARD</b>											
FORT NELSON A	4C05	380	02	47	95	47	92	177A	47	102	33
WATSON LAKE A	YK01	700	26	75	139	114	111	216	61	127*	33
FRANCES RIVER	YK02	730	26	72	142	149	120	312	65	135*	23
DEASE LAKE	4C03	820	26	55	111	45	138	229	45	129	34
SUMMIT LAKE	4C02	1280	05	50	100	70A	104	190	48	105	31
DEADWOOD RIVER	4C09P	1300	01	-	110	58	101	220	58	137*	5
SIKANNI LAKE	4C01	1400	27	89	210	195	219	335	107	223	33
<b>STIKINE/  TAKU</b>											
SPEEL RIVER	AK03	80	28	256	945	401	584	1024	396	653*	28
FORREST- KERR CREEK	4D08P	560	01	-	439	323	494	640	323	514*	6
TELEGRAPH CREEK	4D01	580	27	44	79	82	53	345	53	156	24
NINGUNSAW PASS	4B10	690	Not Available			232	359	629	232	400	24

DEASE LAKE	4C03	820	26	55	111	45	138	229	45	129	34
ISKUT	4D02	1000	25	52	114	60A	86	176	38A	113	24
KINASKAN LAKE	4D11P	1020	01	-	216	265	204	527	204	318	8
TUMEKA CREEK	4D10P	1220	01	-	338	436	354	789	354	576	9
WADE LAKE	4D14P	1370	01	-	229	256	-	475	162	354	7
UPPER STIKINE	4D13P	1450	Not Measured			378	344	591	344	395	9
<b>YUKON</b>											
ATLIN LAKE	4E02A	730	28	46	82	95	71	185A	50	115*	15
LOG CABIN	4E01	880	24	94	218	344	244	514	124	303	38
PINE LK AIRSTRIP	YK03	1010	25	91	207	219	151	330	25	187*	23
MONTANA MTN.	YK05	1020	24	57	96	-	-	182	71	126*	17
TAGISH	YK04	1080	26	52	84	111	99	198	75	123*	23
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											

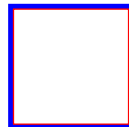
Banner

**April 1, 1999**Fraser  
Basin Snow  
Survey[Fraser Basin Snow Survey Measurements](#)**UPPER FRASER AND NECHAKO**

Precipitation during March as measured at valley bottom stations was a little above normal, as were mean temperatures. Snowpack accumulation was variable, but was generally close to normal at low and mid elevations and below normal at the higher elevation snow courses. The regional water equivalent index for the upper Fraser has dropped from 21% above normal at the beginning of March to 7% above normal now. In the Nechako basin, the snowpack index remains about 25% above normal.

Runoff as measured by the Fraser River at Marguerite (south of Quesnel) continued to be below normal during March. The volume runoff for the April through September period for the Fraser at Marguerite is for 13% above normal, while the forecast inflow to the Nechako reservoir is for 5,790 million cubic metres or 30% above normal.

Unless there are abnormal melt conditions, damaging flooding in this region is not probable this spring.

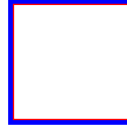
[Data Graphs](#)**MIDDLE AND LOWER FRASER**

Both temperatures and precipitation during the month of March were close to normal throughout the region. Although accumulation of the snowpack has continued, it has been at a relatively slower rate during March and, as a result the snow water equivalent index has fallen from 54% above normal a month ago to 45% above normal now in the middle Fraser. The equivalent numbers for the lower Fraser are a drop from 79% to 64% above normal.

This is still close to a record snowpack and similar to that reported in 1972, a high runoff year. Several long-term snow courses report their highest ever readings for this date. For example Horsefly Mountain (1C13A) in the Quesnel River headwaters which has a 29-year record and Lac le Jeune (Upper) (1C25) near Kamloops which has a 26-year record, both set new all time high readings for this date.

Mean monthly runoff as measured at the Fraser River at Hope continued the pattern of below normal flows that has been observed all winter. The forecast April through September volume at this location is for 19% above normal. Whether this will result in flood flows will, to a large extent depend on the weather in the next two months. A gradual melt would

probably result in high flows, but below damaging levels while a very rapid melt could result in widespread flooding. River levels are unlikely to peak before mid May at earliest and the peak flow might not occur until late June.

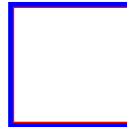


[Data Graphs](#)

## **NORTH AND SOUTH THOMPSON**

The snowpack in the Thompson basin continues to accumulate, although at a slower rate than in previous months. In the North Thompson basin, the regional snowpack index is estimated to be 38% above normal, down from 46% at the beginning of March. In the South Thompson there has been relatively little change with the index remaining 46% above normal for this date. These are in the same order of magnitude as those recorded in 1972 and 1974, both high runoff years, and higher than anything that has been recorded since then. Most stations in the North Thompson report all time record high readings for this date and two long-term stations in the South Thompson also set new records.

The April through September volume flow forecast for the North and South Thompson Rivers are for 29% and 28% above normal, respectively. Melt patterns during April and May will determine whether rivers reach damaging levels. A prolonged warm spell would undoubtedly cause a rapid rise in river levels that could reach damaging levels. Peak flows are unlikely to occur before mid May and could occur any time until the end of June.



[Data Graphs](#)



[Volume Runoff Forecasts](#)

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



Banner

**April 1, 1999**

Columbia  
Basin Snow  
Survey

[Columbia Basin Snow Survey Measurements](#)

### UPPER AND LOWER COLUMBIA

Valley-bottom precipitation during March is reported to have been well above normal while temperatures were only slightly greater than normal. The overall snowpack water equivalent index remains very similar to that reported a month ago at 32% above normal for this sampling period.

An analysis of the distribution shows that there is quite a difference between the eastern and western portions of the basin. In the eastern portions along the Rocky Mountains, the snowpack is generally only a little above normal while snowcourses in the Selkirk Mountains in the Revelstoke area are in excess of 50% above normal and setting new record high readings.

Many of the main rivers in this basin are controlled by hydro-electric dams and should not be subject to damaging flooding. However, uncontrolled streams and rivers, particularly in the western parts of the basin, could see high water levels if there is a rapid melt.

April through September volume inflow forecasts for the Columbia at Donald are for 17% above normal while that for the Columbia at Birchbank is for 21% above normal.

Data  
Graphs

[Data Graph](#)

### EAST AND WEST KOOTENAY

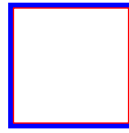
There has been a substantial drop in the regional snowpack index for the Kootenay basin since last month and the index is now estimated to be 34% above normal, compared to 43% above normal at the beginning of March.

As noted for the Columbia basin, there appears to be quite a variation from east to west across the region with the snowpack being near normal in the Elk valley but close to record levels in the West Kootenays. For example, the relatively low-level Upper Elk River snowcourse (2C06) reports only 60% of its normal snowpack for this date while Ferguson snowcourse (2D02) in the West Kootenays reports a 61-year record high water equivalent, 53% above normal.

The April through September volume forecasts for Moyie River near Eastport in the East Kootenays is for 20% above

normal while the equivalent number for the Slocan River in the West Kootenays is for 31% above normal.

As noted above, many of the main rivers in this basin are controlled by hydro-electric dams and should not be subject to damaging flooding. However, uncontrolled streams and rivers, particularly in the western parts of the basin, could see high water levels if there is a rapid melt.



[Data Graphs](#)

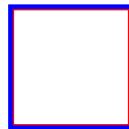
## OKANAGAN, KETTLE AND SIMILKAMEEN

Expressed as a percentage of normal there has been a slight decrease in the regional snow water equivalent index in the Okanagan-Kettle region although it is still estimated at 40% above normal. This is about 10% less than was reported in 1972 and 1974 (high runoff years) but 13% greater than that reported in 1997, a very high runoff year. In the Similkameen the regional index has dropped from 43% to 37% above normal in the past month. This is considerably less than previously recorded maximum amounts, but high enough to cause damaging river levels if there is a rapid melt.

In the Kettle basin, the snowpack below about 1400m is close to normal. However, above this elevation it is well above normal. A rapid melt could result in high river flows in the Kettle River basin.

Releases from Okanagan Lake dam in Penticton have been high all spring and the lake is lower than normal in anticipation of runoff 47% greater than normal in the April-July period. Unless the runoff is very early or there are significant rainfalls, there should be sufficient storage in Okanagan Lake that the normal upper level is not exceeded. High flows in Okanagan River can be anticipated for at least the next two months.

Those living adjacent to snowmelt fed rivers and lakes should be aware that warm weather can cause rapid rises in water levels and that, with the above normal snowpack reported this year, this is a more likely scenario than many other years.



[Data Graphs](#)

Volume  
Runoff  
Forecasts

[Volume Runoff Forecasts](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)

Banner

**April 1, 1999**

Snow  
Survey  
Measurements

[Coastal Basin Snow Survey Measurements](#)

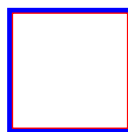
## **SOUTH COASTAL AND VANCOUVER ISLAND**

In the South Coast and Vancouver Island Region, snow accumulation during March was very high and most reporting snow courses have record water content. Some of the snow depths are quite remarkable.

Some snow courses and pillows could not be accessed because of too much snow. One interesting case is the snow pillow at Jump Creek on Vancouver Island, where snow was so deep that it covered all the trees in the vicinity and the snow pillow site could not be recognized from a helicopter.

Regional precipitation was near normal for March, but seasonal totals since November remain well above normal. Temperatures for March were near normal.

Regional runoff as represented by inflow to Upper Campbell Lake on Vancouver Island was a little below normal for March. Snowmelt runoff volume for April-July is forecast to be 55% above normal, based on the existing snowpack and assuming normal weather for that period.



[Data Graphs](#)

Volume  
Runoff  
Forecasts

[Volume Runoff Forecasts](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)

Banner

**April 1, 1999**

Snow  
Survey  
Measurements

[Northern Basins Snow Survey Measurements](#)

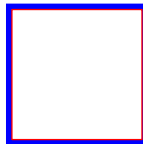
### **NORTHEASTERN**

April 1 snow surveys in the Peace region indicate a snowpack that is quite heavy to the south and west of Williston Lake, and below normal to the north and east. Accumulations during March were below normal at most snow courses.

The Liard basin has a full complement of snow courses reporting for April 1. This is still fairly thin coverage, but the indication is an overall snowpack that is below normal. However the two snowcourses in the Yukon both report above normal for this date.

Precipitation measured at weather stations was below normal for March, but seasonal totals are normal. March mean temperatures are not available.

Inflow to Williston Lake for March was above normal for the fourth consecutive month. Runoff volume to the end of September is forecast to be 6% above normal.



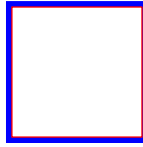
[Data Graphs](#)

### **NORTHWESTERN**

The April snowpack in the Skeena-Nass Region is slightly above average. Two notable snowcourses that differ from the overall trend are the low elevation snowcourse at Terrace (4B31A), and Kidprice Lake (4B01), both much higher than normal. Farther north, the Stikine and Yukon River basins show below normal snowpacks. Precipitation at weather stations was well below normal for March; the total since November is just normal after much variability over this period. Mean monthly temperatures for March were just below normal.



Regional runoff is indicated by the Skeena River at Usk, which may not be that representative for all of northwest BC this year. The March runoff at this station was 16% above normal. Seasonal runoff for April-September is predicted to be very close to normal, assuming normal weather during that period.



[Data Graphs](#)

Volume  
Runoff  
Forecasts

[Volume Runoff Forecasts](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



**FRASER**

April 1, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER FRASER</b>											
PRINCE GEORGE A	1A10	690	29	47	157	0	170E	313	0	132	37
PACIFIC LAKE	1A11	770	28	196	762	379	830	879	290	623	36
BURNS LAKE	1A16	800	01	45	154	-	264	264	0	125	27
CANOE RIVER	2A01A	910	26	42	126	16	121	262	0	123	58
PHILIP LAKE	4A13	980	29	94	326	216	423	423	180	288	36
HEDRICK LAKE	1A14	1100	28	206	890A	430	869	1046	351	689	32
BIRD CREEK	1A23	1180	31	59	164	106	270	270	84	152*	9
KAZA LAKE	1A12	1190	29	109	340	296	389	453	226	330	34
LU LAKE	4B15	1300	30	111	314	232	484	484	170	310	22
FORFAR CREEK (UPPER)	1A24	1410	31	170	598	532	760	760	426B	573*	6
EQUITY MINE	4B14	1420	30	128	372	358	640	640	258	357	22
MOUNT SHEBA	4A18	1490	28	243	979	637	1140A	1146	495	815	30
BARKERVILLE	1A03	1520	30	121	473	218	-	566	218	378	47
BARKERVILLE	1A03P	1520	01	-	499	296	461	524	269	393	22
MC BRIDE (UPPER)	1A02	1580	26	134	465	314	433	780	260	462	46
KNUDSEN LAKE	1A15	1580	28	214	870	640A	910A	1255	485	864	30
NARROW LAKE	1A21	1650	27	262	1105	709	1214	1350	541	895	24
REVOLUTION CREEK	1A17P	1690	01	-	845	575	839	1222	575	863	13
LONGWORTH (UPPER)	1A05	1740	28	204	840A	568	-	1234A	467	781	44

DOME MOUNTAIN	1A19	1820	26	219	909	544	838	1057	416	802	28
MARMOT JASPER	AL12	1830	30	100	310	147	265B	422	147	240*	29
YELLOWHEAD	1A01	1860	26	178	666	350	538	770	293	520	47
YELLOWHEAD	1A01P	1860	01	171	784	446	225	446	225	336*	2
HOLMES RIVER	1A18	1900	26	211	791	539	790	1029	459	748	29
<b>NECHAKO</b>											
SKINS LAKE	1B05	880	01	41	141	101	153Z	203	0	115	35
TAHTSA LAKE	1B02	1300	31	370	1529	1105	1401	1554	775	1117	46
TAHTSA LAKE	1B02P	1300	01	-	1686	1271	1551	1551	860	1279*	6
KIDPRICE LAKE	4B01	1370	31	265	1084	840	1095	1247	622	888	45
MOUNT PONDOSY	1B08P	1400	01	-	1027	796	985	1006	576	847*	7
MOUNT WELLS	1B01	1490	31	158	576	447	711	960	356	516	44
MOUNT WELLS	1B01P	1490	01	-	561	497	725	725	494	603	7
NUTLI LAKE	1B07	1490	31	150	559	459	679	724	459	584*	8
MOUNT SWANNELL	1B06	1620	31	119	401	203	437	489	203	307*	10
<b>MIDDLE FRASER</b>											
PUNTZI MOUNTAIN	1C22	940	29	14	46	0	52	120C	0	28	29
BROOKMERE	1C01	980	31	81	272	180	296	399	92	211	54
NAZKO	1C08	1070	05	33	92	1	80	165B	0	71	40
BIG CREEK	1C21	1140	30	10	26	0	3	119	0	16*	28
GRANITE MOUNTAIN	1C33	1150	01	64	212	73	261	261	73	183*	6
DUFFY LAKE	1C28	1200	31	209	866	422	677	677	244	484	21
PAVILION	1C06	1230	31	12	40	0	68	147	0	60	42
LAC LE JEUNE (LOWER)	1C07	1370	01	53	160	88	171	251	0	112	43
CONANT LAKE	1C31	1370	28	80	279	185	292	292	56	206	18
BRIDGE GLACIER (LOWER)	1C39	1400	01	275	1086	640	648	716	604	652*	4
DEADMAN RIVER	1C32	1430	29	54	141	80	122	188	30	122	15
BRALORNE	1C14	1450	01	90	321	110	271	389	0	173	36
BONAPARTE LAKE	1C34	1450	29	133	426	238	384	384	238	320*	6

SHOVELNOSE MOUNTAIN	1C29	1450	28	107	442	241	331	331	108	265	20
BOSS MOUNTAIN MINE	1C20P	1460	01	184	844	529	743	743	529	577	5
LAC LE JEUNE (UPPER)	1C25	1460	01	73	228	144	222	226	43	147	26
BRENDA MINE	2F18	1460	30	104	358	263	398B	531	190	325	30
BRENDA MINE	2F18P	1460	01	-	467	317	497	497	227	356	6
HIGHLAND VALLEY	1C09A	1510	30	52	142	89	174	249	3A	102	33
BARKERVILLE	1A03	1520	30	121	473	218	-	566	218	378	47
BARKERVILLE	1A03P	1520	01	-	499	296	461	524	269	393	22
HORSEFLY MOUNTAIN	1C13A	1550	28	157	716	322	616	645A	282	462	29
GNAWED MOUNTAIN	1C19	1580	30	64	182	111	185	307	37	140	31
GREEN MOUNTAIN	1C12	1630	Not Measured			-	717	1173	338	661	33
MOUNT TIMOTHY	1C17	1660	27	135	507	199	430	533	186	331	36
YANKS PEAK EAST	1C41P	1670	01	213	994	750	953	953	750	852*	2
PENFOLD CREEK	1C23	1680	Not Measured			914	1106	1285	700	999	24
YANKS PEAK	1C24	1710	27	241	992	619	896	1045	475	763	26
GREEN MOUNTAIN	1C12P	1780	01	-	1408	850	1021	1025	850	947*	5
MCGILLIVRAY PASS	1C05	1800	01	240	964	568	762	1118	322	594	46
MISSION RIDGE	1C18P	1850	01	-	908	460	661	907	359	650	12
DOWNTON LAKE (UPPER)	1C38	1890	01	339	1416	912	884	1030	884	960*	4
TYAUGHTON CREEK (NORTH)	1C40	1950	01	207	844	424	584	584	396	469*	4
PAVILION MOUNTAIN	1C36	1960	02	115	373	241	313	313	232	255*	4
BRALORNE (UPPER)	1C37	1980	01	251	1010	652	834	834	652	744*	4
<b>LOWER FRASER</b>											

WOLVERINE CREEK	1D13	300	31	3	12	0	92	160	0	17*	23
SUMMALLO RIVER WEST	3D01C	790	02	100	404	110	512B	512B	0	37*	7
BROOKMERE	1C01	980	31	81	272	180	296	399	92	211	54
DISAPPOINTMENT LAKE	1D18P	1040	Not Available			-	-	1966	1966	1966*	1
CALLAGHAN CREEK	3A20	1040	28	373	1608	836	1064	1570	192	973	22
DICKSON LAKE	1D16	1070	31	668	2970A	1548	1992	1992	738	1275*	7
DOG MOUNTAIN	3A10	1080	26	580	2800A	1055	1474	2314	51	1261	54
BEAVER PASS	WA12	1120	30	376	1491	770	1041	1849	94	784*	54
KLESILKWA	3D03A	1130	31	161	541	130	528	792	0	303	51
DUFFEY LAKE	1C28	1200	31	209	866	422	677	677	244	484	21
STAVE LAKE	1D08	1210	01	655	2750A	1684	1876	2421	579	1585	31
WAHLEACH LAKE	1D09	1400	31	263	925	607	844	1270	125	666	31
WAHLEACH LAKE	1D09P	1400	31	371	1380P	1006	1292	1292	634	892*	7
NAHATLATCH RIVER	1D10	1520	01	597	2500A	1437	1384	2225	749	1426	31
EASY PASS	WA13	1580	Not Available			-	-	3094	996	2061*	31
CHILLIWACK RIVER	1D17P	1600	Not Measured			1279	1850	1850	1040	1635	6
GREAT BEAR	1D15P	1660	01	-	2400	1602	2300	2300	1375	1607	7
TENQUILLE LAKE	1D06	1680	27	434	1795	1148	1310	1773	605	1167	46
<b>NORTH THOMPSON</b>											
BLUE RIVER	1E01B	670	30	98	340	190	425	425	186	286	16
KNOUFF LAKE	1E05	1200	28	54	160	112	189	274	58	147	43
COOK FORKS	1E06	1390	01	280	1207	693	1031	1394	530A	924	36
BOSS MOUNTAIN MINE	1C20P	1460	01	184	844	529	743	743	529	577	5
MOUNT COOK	1E02A	1580	29	394	1709	1226	1381	1500A	790A	1243	25
AZURE RIVER	1E08	1620	27	361	1413	1052	1166	1422A	712	1034	29
AZURE RIVER	1E08P	1620	01	314	1511	1125	1241	1241	1125	1183*	2
ADAMS RIVER	1E07	1720	30	268	1069	685	787	1016	435	710	29
KOSTAL LAKE	1E10P	1770	01	-	1165	871	1009	1009	618	871	14

TROPHY MOUNTAIN	1E03A	1860	28	225	888	562	653	739	366	545	25
NORTH CLEMINA CREEK	1E13	1860	26	261	1018	738	823	1003	560	828*	10
<b>SOUTH THOMPSON</b>											
ANGLEMONT	1F02	1190	01	105	398	184	440	561	142	361	41
ABERDEEN LAKE	1F01A	1310	29	43	132	110	212	259	6	145	60
MONASHEE PASS	2E01	1370	01	103	417	282	517	517	205	346	50
BOULEAU LAKE	2F21	1400	27	135	430	278	436	564	201	351	28
ADAMS RIVER	1E07	1720	30	268	1069	685	787	1016	435	710	29
KIRBYVILLE LAKE	2A25	1750	31	406	1804	1114	1311	1567	701	1126	26
SILVER STAR MOUNTAIN	2F10	1840	28	259	974	656	907	1115	414	726	40
PARK MOUNTAIN	1F03P	1890	01	-	1122	751	1207	1207	666	834	14
ENDERBY	1F04	1900	02	328	1430	972	1234	1316A	610	988	36
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											

**COLUMBIA**

April 1, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER COLUMBIA</b>											
CANOE RIVER	2A01A	910	26	42	126	16	121	262	0	123	58
DOWNIE SLIDE (LOWER)	2A27	980	31	261	1062	584	970	970	465	710	22
GLACIER	2A02	1250	31	223	926	594	843	1161	371B	735	62
FIELD	2A03A	1280	29	47	162	93	230	251	8	151	59
SUNWAPTA FALLS	AL11	1400	30	80	284	136	245B	333	89	195*	30
VERMONT CREEK	2A19	1520	28	139	619	397	519	843	202	459	33
AZURE RIVER	1E08	1620	27	361	1413	1052	1166	1422A	712	1034	29
AZURE RIVER	1E08P	1620	01	314	1511	1125	1241	1241	1125	1183*	2
DOWNIE SLIDE (UPPER)	2A29	1630	31	503	2484	1354	1424	1656	858	1231	21
KICKING HORSE	2A07	1650	29	114	394	282	442	589	211	357	51
KIRBYVILLE LAKE	2A25	1750	31	406	1804	1114	1311	1567	701	1126	26
MOUNT REVELSTOKE	2A06P	1830	01	-	1686	1080	1351	1386	709	1198	6
NORTH CLEMINA CREEK	1E13	1860	26	261	1018	738	823	1003	560	828*	10

FIDELITY MOUNTAIN	2A17	1870	29	370	1569	1078	1429	1951	730	1245	36
BEAVERFOOT	2A11	1890	28	81	231	156	301	460	105	227	39
KEYSTONE CREEK	2A18	1890	31	329	1388	689	928	1278	548	817	32
GOLDSTREAM	2A16	1920	31	358	1495	1056	1272	1638A	785	1125	35
BUSH RIVER	2A23	1920	31	269	1162	634	915	1331	455	850	32
NIGEL CREEK	AL10	1920	30	163	616	310	478B	700	198	427*	30
MOUNT ABBOT	2A14	1980	26	405	1584	1059	1358	1849	698	1258	40
MOLSON CREEK	2A21P	1980	01	-	1151	841	1089	1166	651	1003	16
SUNBEAM LAKE	2A22	2010	31	300	1235	647	954	1384	600	916	32
MIRROR LAKE	AL06	2030	30	130	404	246	434	561	160	302*	59
BOW SUMMIT II	AL07A	2080	30	138	460	257	462	584B	206	364*	20
<b>LOWER COLUMBIA</b>											
FERGUSON	2D02	880	29	201	881	446	783	790	142	576	61
BAIRD	WA02	980	30	76	246	188	363	363	0	150*	39
FARRON	2B02A	1220	26	97	348	347	447	480	167	338	26
MONASHEE PASS	2E01	1370	01	103	417	282	517	517	205	346	50
WHATSHAN (UPPER)	2B05	1480	01	231	964	591	928	928	427	647	41
BARNES CREEK	2B06	1620	01	165	703	447	768	768	321	509	42
BARNES CREEK	2B06P	1620	01	-	701	446	773	773	446	576*	6
ST. LEON CREEK	2B08	1800	01	409	1776	1195	-	1831	818	1201	31
ST. LEON CREEK	2B08P	1800	01	-	1553	1050	1260	1260	712	1102	5
KOCH CREEK	2B07	1860	01	278	1156	735	917	1034	424	742	40
RECORD MOUNTAIN	2B09	1890	01	309	1310	826	978	1091A	315	775	24
EAST CREEK	2D08P	2030	01	-	1241	731	900	1245	466	897	18



<b>EAST KOOTENAY</b>											
KISHENEHN	MT01	1190	27	64	206	168	363	465	36	204*	52
FERNIE EAST	2C07	1250	01	106	360	240	468	605	151	370	47
UPPER ELK RIVER	2C06	1340	28	24	70	54	140	345	0	116	51
SINCLAIR PASS	2C01	1370	31	43	108	97	194	262A	36	134	62
MARBLE CANYON	2C05	1520	30	121	408	278	464	587A	168	352	52
BRUSH CREEK TIMBER	MT03	1520	30	58	178	79	312	434	76	251*	47
SULLIVAN MINE	2C04	1550	30	111	404	219	468	538	137	324	53
WEASEL DIVIDE	MT02	1660	29	264	1064	671	-	1346	432	832*	58
KIMBERLEY (MIDDLE)V O R	2C12	1680	30	95	321	201	394	462	163	298	30
BANFIELD MOUNTAIN	MT05	1710	29	213	843	371	-	919	290	543*	29
MOUNT JOFFRE	2C16	1750	28	125	456	343	476	711	188	376	30
MORRISSEY RIDGE	2C09Q	1800	01	-	844	664	1035	1224	492	751	15
RED MOUNTAIN	MT04	1830	30	168	653	348	726	810	211	485*	60
MOYIE MOUNTAIN	2C10P	1930	01	128	679	424	-	624	216	389*	19
HAWKINS LAKE	MT06	1970	Not Available			572	-	1313	399	761*	28
ALLISON PASS	AL01	1980	30	147	556	432	622	823	302	495*	35
WILKINSON SUMMIT (BUSH)	AL03	1980	31	77	221	206	213	460	112	221*	35
THUNDER CREEK	2C17	2010	28	106	338	260	383	475	171	279	29
FLOE LAKE	2C14	2090	28	264	1075	618	924	1242	411	762	29
FLOE LAKE	2C14P	2090	01	-	1001	551	840	840	360	674	4

KIMBERLEY (UPPER) V O R	2C11	2140	30	176	608	326	618	798	234	488	30
HIGHWOOD SUMMIT (BUSH)	AL02	2210	Not Available			356	465	681	244	398*	29
MOUNT ASSINIBOINE	2C15	2230	28	212	732	453	631	816	295	530	30
SUNSHINE VILLAGE	AL05	2230	29	212	719	417	693	996	340	608*	32
<b>WEST KOOTENAY</b>											
DUNCAN LAKE NO. 2	2D07A	650	26	46	182	0	223	223	0	89*	8
FERGUSON	2D02	880	29	201	881	446	783	790	142	576	61
NELSON	2D04	930	30	147	551	350	606	622	137	380	61
SANDON	2D03	1070	30	118	485	321	450	585	71	352	60
CHAR CREEK	2D06	1310	31	208	780	461	823	940	302	584	33
SMITH CREEK	ID01	1460	01	432	1940	1052	-	1791	587	1115*	57
BUNCHGRASS MEADOW	WA01	1520	30	287	1074	-	1107	1173	340	742*	57
GRAY CREEK (LOWER)	2D05	1550	31	170	660	394	628	688	290	467	51
ARROW CREEK	2D11	1620	31	290	1330	-	1005	1005	474	743	20
KOCH CREEK	2B07	1860	01	278	1156	735	917	1034	424	742	40
MOUNT TEMPLEMAN	2D09	1860	28	330	1401	856	1260	1608	688	1057	30
GRAY CREEK (UPPER)	2D10	1910	31	262	1060	620	938	1123	524	793	30
EAST CREEK	2D08P	2030	01	-	1241	731	900	1245	466	897	18
<b>KETTLE</b>											
TRAPPING CREEK (LOWER)	2E05	930	03	21	66	42	124	218	0	80	33
FARRON	2B02A	1220	26	97	348	347	447	480	167	338	26
GOAT CREEK	WA04	1220	31	51	132	142	150	274	0	112*	35
CARMI	2E02	1250	03	40	112	90	200	290	14	150	36

TRAPPING CREEK (UPPER)	2E04A	1350	03	50	194	126	286	286	26	210	15
MONASHEE PASS	2E01	1370	01	103	417	282	517	517	205	346	50
SUMMIT G.S.	WA05	1400	31	79	269	224	305	338	23	206*	36
BIG WHITE MOUNTAIN	2E03	1680	03	166	674	484	658	762	358	479	33
GRANO CREEK	2E07P	1860	01	182	769	578	-	578	578	578*	1
BLUEJOINT MOUNTAIN	2E06	2040	01	291	1175	791	1010	1010	378	727	21
<b>OKANAGAN</b>											
SUMMERLAND RESERVOIR	2F02	1280	26	77	264	176	339	389	96	230	62
MC CULLOCH	2F03	1280	01	48	184	156	206	249	38	159	61
ABERDEEN LAKE	1F01A	1310	29	43	132	110	212	259	6	145	60
OYAMA LAKE	2F19	1340	30	62	199	171	255	255	61	162	28
POSTILL LAKE	2F07	1370	31	75	262	198	286	348	109	220	48
BOULEAU LAKE	2F21	1400	27	135	430	278	436	564	201	351	28
VASEUX CREEK	2F20	1400	30	37	122	142	186	239	82	160	28
TROUT CREEK	2F01	1430	29	73	259	145	260	396	52	175	62
ESPERON CR (MIDDLE)	2F14	1430	28	132	506	292	460	607	224	362	31
BRENDA MINE	2F18	1460	30	104	358	263	398B	531	190	325	30
BRENDA MINE	2F18P	1460	01	-	467	317	497	497	227	356	6
ISLAHT LAKE	2F24	1480	30	130	501	327	460	462	222	341	16
GREYBACK RESERVOIR	2F08	1550	30	78	273	236	326	351	114	228	45
ESPERON CR (UPPER)	2F13	1650	28	166	636	360	536	805	270	432	30
ISINTOK LAKE	2F11	1680	26	74	232	112	203	424	66	181	34
MACDONALD LAKE	2F23	1740	30	177	677	440	554B	616	257	441	22

MUTTON CREEK NO. 1	WA07	1740	31	190	714	447	444	721	79	342*	58
MISSION CREEK	2F05P	1780	01	168	728	439	-	683	278	468	27
GRAYSTOKE LAKE	2F04	1810	30	131	490	290	456	828	206	412	29
MOUNT KOBALU	2F12	1810	28	150	516	380	375	602	105	322	33
WHITEROCKS MOUNTAIN	2F09	1830	30	252	995	508	650	1021	323	584	44
SILVER STAR MOUNTAIN	2F10	1840	28	259	974	656	907	1115	414	726	40
<b>SIMILKAMEEN</b>											
BROOKMERE	1C01	980	31	81	272	180	296	399	92	211	54
FREEZEOUT CREEK TRAIL	WA11	1070	31	155	576	208	508	665	8	304*	54
LIGHTNING LAKE	3D02	1220	31	144	534	272	462	622	140	315	51
HAMILTON HILL	2G06	1490	30	112	419	232	466	851	164	373	39
MISSEZULA MOUNTAIN	2G05	1550	29	88	319	184	304	516B	104	235	38
ISINTOK LAKE	2F11	1680	26	74	232	112	203	424	66	181	34
LOST HORSE MOUNTAIN	2G04	1920	29	94	296	192	262	533	146E	235	36
BLACKWALL PEAK	2G03P	1940	01	-	1294	668	1080	1494	400	841	31
HARTS PASS	WA09	1980	31	409	1684	958	1201	1725	541	1084*	56

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE

**NORTH**

April 1, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>PEACE</b>											
FORT ST. JOHN A	4A25	690	27	44	116	82	196	210	0	111	25
MACKENZIE A	4A19	700	29	86	334	172	300	361	0	223	27
PACIFIC LAKE	1A11	770	28	196	762	379	830	879	290	623	36
BULLHEAD MOUNTAIN	4A28	790	Not Available			89	168	168	0	118	14
PHILIP LAKE	4A13	980	29	94	326	216	423	423	180	288	36
WARE (LOWER)	4A04	980	30	63	168	129	199	316	112B	183	36
MC LEOD LAKE	4A01	980	28	71	294	189	388	388	60	219	39
AIKEN LAKE	4A30P	1040	01	-	260	217	262	371	206	273*	12
TUTIZZI LAKE	4A06	1070	29	90	284	214	278	406	166	249	36
TSAYDAYCHI LAKE	4A12	1160	29	131	457	329	510	584	234	392	36
PINK MOUNTAIN	4A14	1170	28	11	49	91	161B	175	20	87	35
KAZA LAKE	1A12	1190	29	109	340	296	389	453	226	330	34
PULPIT LAKE	4A09	1310	30	125	392	347	410	556	297	400	36
PULPIT LAKE	4A09P	1310	01	-	418	384	421	500	384	395	8
FREDRICKSON LAKE	4A10	1310	29	78	226	165	237	351	163B	249	36

PINE PASS	4A02P	1400	01	-	1128	1033	1116	1530	1033	1120	7
TRYGVE LAKE	4A11	1400	29	108	315	305	331	493	257	357	36
SIKANNI LAKE	4C01	1400	30	90	235	211	273	380	166	264	36
PINE PASS	4A02	1430	28	309	1238	1080	1351	1562	668	1129	37
MORFEE MOUNTAIN	4A16	1450	28	223	910	697	1097	1158	555	857	31
LADY LAURIER LAKE	4A07	1460	30	155	483	443	485	737	342	493	35
MOUNT SHEBA	4A18	1490	28	243	979	637	1140A	1146	495	815	30
GERMANSEN (UPPER)	4A05	1500	29	126	409	315	429	523	200	346	37
MOUNT STEARNS	4A21	1500	30	60	112	157	169	239	76	161	24
JOHANSON LAKE	4B02	1540	29	96	269	259	284	417	173	286	36
MONKMAN CREEK	4A20	1550	28	169	647	369	730A	1067	347	626	21
WARE (UPPER)	4A03	1570	30	100	253	281	232	390	157	253	36
BULLMOOSE CREEK	4A31	1570	06	152	548	418	628	698	312	534*	11
KWADACHA RIVER	4A27P	1620	01	-	349	-	306	446	240	332	14
<b>SKEENA/NASS</b>											
TERRACE A	4B13A	180	29	74	302	0	228	333	0	70*	19
BEAR PASS	4B11A	460	31	175	656	408	673	900	408	773	15
NINGUNSAW PASS	4B10	690	01	125	478	231	480Z	620	231	422	24
GRANDUC MINE	4B12	790	28	335	1301	1376	1790E	1834	1152	1447	23
MCKENDRICK CREEK	4B07	1050	31	96	301	243	398	427	183	297	31
TACHEK CREEK	4B06	1140	30	85	244	184	362	362	112	218	31

KAZA LAKE	1A12	1190	29	109	340	296	389	453	226	330	34
LU LAKE	4B15	1300	30	111	314	232	484	484	170	310	22
LU LAKE	4B15P	1310	01	100	308	225	-	225	225	225*	1
TSAI CREEK	4B17P	1360	01	256	1208	1054	-	1054	1054	1054*	1
KIDPRICE LAKE	4B01	1370	31	265	1084	840	1095	1247	622	888	45
TRYGVE LAKE	4A11	1400	29	108	315	305	331	493	257	357	36
EQUITY MINE	4B14	1420	30	128	372	358	640	640	258	357	22
CHAPMAN LAKE	4B04	1460	31	148	515	460	641	762	315	461	34
HUDSON BAY MTN.	4B03A	1480	01	134	479	463	698	846	356	515	27
MOUNT CRONIN	4B08	1480	31	185	615	574	725	1097	433	624	30
SHEDIN CREEK	4B16P	1480	01	168	758	791	896	1039	791	909*	3
JOHANSON LAKE	4B02	1540	29	96	269	259	284	417	173	286	36
<b>LIARD</b>											
FORT NELSON A	4C05	380	01	30	84	23	104	198	23	105	33
WATSON LAKE A	YK01	700	30	64	149	115	116	229	71	124*	32
FRANCES RIVER	YK02	730	30	67	161	157	131	302	76	150*	22
DEASE LAKE	4C03	820	27	43	108	56	147	259	56	144	34
SUMMIT LAKE	4C02	1280	01	49	90	0	-	240	0	122	32
DEADWOOD RIVER	4C09P	1300	01	-	125	70	113	283	70	172*	5
SIKANNI LAKE	4C01	1400	30	90	235	211	273	380	166	264	36
<b>STIKINE/ TAKU</b>											
SPEEL RIVER	AK03	80	30	259	1097	411	691	1402	300	780*	30
FORREST- KERR CREEK	4D08P	560	01	-	488	390	509	671	390	546*	6

TELEGRAPH CREEK	4D01	580	27	30	79	75	58	343	37	155	24
NINGUNSAW PASS	4B10	690	01	125	478	231	480Z	620	231	422	24
DEASE LAKE	4C03	820	27	43	108	56	147	259	56	144	34
ISKUT	4D02	1000	01	41	103	60	100Z	167	0	120	24
KINASKAN LAKE	4D11P	1020	01	-	256	287	277	570	277	368	8
TUMEKA CREEK	4D10P	1220	01	-	387	482	457	869	457	638	9
WADE LAKE	4D14P	1370	01	-	262	293	-	527	232	406	7
UPPER STIKINE	4D13P	1450	Not Measured			408	402	689	402	474	9
<b>YUKON</b>											
ATLIN LAKE	4E02A	730	27	36	89	105Z	101	197	50	123*	15
LOG CABIN	4E01	880	26	96	256	359	299	596	213	331	39
PINE LK AIRSTRIP	YK03	1010	29	80	250	256	191	351	122	223*	23
MONTANA MTN.	YK05	1020	26	47	98	-	-	185	84	137*	16
TAGISH	YK04	1080	29	44	88	110	142	177	73	137*	22
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											

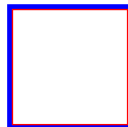


Banner

**May 1, 1999**Fraser  
Basin  
Snow[Fraser Basin Snow Survey Measurements](#)**UPPER FRASER AND NECHAKO**

Near normal temperatures and precipitation in the upper Fraser during April has resulted in little change in the snow pack in the basin. While some melting has occurred at lower elevations, there has been little melting of the high level snowpack. The regional snow water equivalent index remains about 8% above normal. In the Nechako basin the regional index has dropped from 26% above normal at the beginning of April to 19% above normal now.

A rapid melt could result in river levels in the upper Fraser rising quite rapidly, but it seems unlikely that water levels will reach damaging flood levels along the main rivers in the area.

[Data Graphs](#)**MIDDLE AND LOWER FRASER**

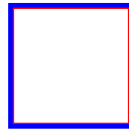
Mean monthly temperatures as measured at Environment Canada's weather stations indicate that temperatures in April were very close to normal. Precipitation, based on relatively few readings, is estimated to have been about half normal during the month. The lack of any sustained warm weather has meant that the snowmelt has not been as great as normal and the snowpacks remain substantially above normal for this date.

In the middle Fraser, Horsefly Mountain (1C13A) in the headwaters of the Quesnel River, equals its old record set in 1972. In the lower Fraser several snow courses report new record high readings. For example, Nahatlatch River (1D10) reports a water equivalent 15% greater than previously recorded in 31 years of record. The regional water equivalent indices for the middle and lower Fraser are estimated to be 42% and 63% above normal for this date.

The potential for flooding along the main stem of the Fraser remains high and a rapid warming could result in rapid increases in water levels and velocities. While it is possible that flows similar to those recorded in 1948 could occur, it would only be as the result of very abnormal weather patterns and would probably not result in widespread damage as the dikes are of a much higher caliber than they were in 1948. Thus, the probability of areas behind dikes built to provincial standards becoming inundated is considered to be low.

The mean monthly flow in the Fraser River at Hope for April was about 21% above average as some of the lower

elevation snow melted off. The volume forecast for the period May through September is for 19% greater than normal.



[Data Graphs](#)

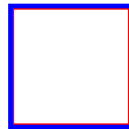
## **NORTH AND SOUTH THOMPSON**

Near normal temperatures and precipitation varying from near normal in the north Thompson to 40% below normal in the South Thompson has resulted in a snowpack that, expressed as a percentage of the normal amount, has decreased since the beginning of April. The regional snowpack indices for the North and South basins are now estimated to be 34% and 35% above normal compared to 38% and 46%, respectively, a month ago.

Several of the higher elevation snow courses in the North Thompson basin report record snowpack levels for this date. For example, Azure River (1E08) which has 29 years of May 1st measurements has 36 mm more water than its previous (1972) record. In the South Thompson no new records are set although many of the higher elevation snow courses are not much below their highest recorded values.

The high snowpack in the basin means that there is the potential for damaging flooding in flood-prone areas throughout the basin. A gradual melt would probably result in high river levels, but little damage while a very rapid melt could cause a rapid rise in river levels to damaging stages.

The melting of some of the low elevation snow in the basin is evident in the flow of the Thompson River near Spences Bridge which averaged 34% greater than normal during April.



[Data Graphs](#)

**Volume  
Runoff  
Forecasts**

[Volume Runoff Forecasts](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



Banner

**May 1, 1999**

Columbia  
Basin  
Snow

[Columbia Basin Snow Survey Measurements](#)

### UPPER AND LOWER COLUMBIA

Valley-bottom precipitation during April is reported to have been very near normal, but seasonal totals since November remain well above normal. Temperatures during April were near normal. The overall snowpack water equivalent index is slightly lower than that reported a month ago at 29% above normal for this sampling period.

As reported last month, an analysis of the snow distribution shows that there is quite a difference between the eastern and western portions of the basin, although this pattern is less pronounced than it was a month ago. In the eastern portions along the Rocky Mountains, the snowpack is generally only a little above normal, while some snowcourses in the Selkirk Mountains in the Revelstoke area are still setting new record high readings.

Many of the main rivers in this basin are controlled by hydro-electric dams and should not be subject to damaging flooding. However, uncontrolled streams and rivers, particularly in the western parts of the basin, could see high water levels if there is a rapid melt.

April through September volume inflow forecast for the Columbia at Donald is for 17% above normal while that for the Columbia at Birchbank is for 21% above normal.

Data  
Graphs

[Data Graph](#)

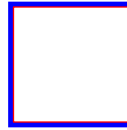
### EAST AND WEST KOOTENAY

Due to a slower than normal snowmelt, there has been an increase in the regional snowpack index for the Kootenay basin since last month and the index is now estimated to be 38% above normal, compared to 34% above normal at the beginning of April.

As noted for the Columbia basin, there appears to be quite a variation from east to west across the region with the snowpack being near normal in the Elk valley but close to record levels in the West Kootenays. For example, the relatively low-level Sinclair Pass snowcourse (2C01) reports only 98% of its normal snowpack for this date while Ferguson snowcourse (2D02) in the West Kootenays reports a 53-year record high water equivalent, 80% above normal.

The April through September volume forecasts for Moyie River near Eastport in the East Kootenays is for 11% above normal while the equivalent number for the Slocan River in the West Kootenays is for 35% above normal.

As noted above, many of the main rivers in this basin are controlled by hydro-electric dams and should not be subject to damaging flooding. However, uncontrolled streams and rivers, particularly in the western parts of the basin, could see high water levels if there is a rapid melt.



[Data Graphs](#)

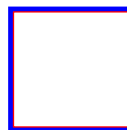
### OKANAGAN, KETTLE AND SIMILKAMEEN

Expressed as a percentage of normal the regional snow water equivalent index in the Okanagan-Kettle region is still estimated at 40% above normal. This is about 10% less than was reported in 1972 and 1974 (high runoff years) but 13% greater than that reported in 1997, a very high runoff year. In the Similkameen the regional index has again dropped, from 37% to 31% above normal, during the past month. This is considerably less than previously recorded maximum amounts, but high enough to cause damaging river levels if there is a rapid melt.

In the Kettle basin, the snowpack below about 1400 meters elevation is close to normal, with snow melt nearly completed. However, above this elevation it is still well above normal. A rapid melt could result in high river flows in the Kettle River basin.

Releases from Okanagan Lake dam in Penticton have been high all spring, and despite nearly twice the normal inflows during the month of April the lake is lower than normal in anticipation of runoff 40% greater than normal in the April-July period. Unless the runoff is very early or there are significant rainfalls, there should be sufficient storage in Okanagan Lake that the normal upper level is not exceeded. High flows in Okanagan River can be anticipated for at least the next six to eight weeks.

Those living adjacent to snowmelt fed rivers and lakes should be aware that warm weather can cause rapid rises in water levels and that, with the above normal snowpack reported this year, this is a more likely scenario than many other years.



[Data Graphs](#)

Volume  
Runoff  
Forecasts

[Volume Runoff Forecasts](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

Banner

**May 1, 1999**

Snow  
Survey  
Measureme

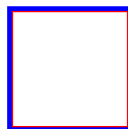
[Coastal Basin Snow Survey Measurements](#)

### **SOUTH COASTAL AND VANCOUVER ISLAND**

South Coast and Vancouver Island Region snowpack continues to be very high and most reporting snow courses still have record water content. Interestingly, most of the snow depths are significantly shallower than last month even though the water content may be higher, as the snowpack matures and settles.

Regional precipitation was below normal for April, but seasonal totals since November remain well above normal. Temperatures for April were a little above normal.

Regional runoff as represented by inflow to Upper Campbell Lake on Vancouver Island was near normal for April. Based on the existing snowpack and assuming normal weather for the period, snowmelt runoff volume for May-July is expected to be 170% of normal. Peak flows may be higher than normal springtime flows, depending on the weather, and freshet runoff will continue for longer. However, it is unlikely that peak flows from snowmelt will exceed the extreme peaks that occur in the fall rainstorm events.



[Data Graphs](#)

Volume  
Runoff  
Forecasts

[Volume Runoff Forecasts](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)

Banner

**May 1, 1999**

Snow  
Survey  
Measurements

[Northern Basins Snow Survey Measurements](#)

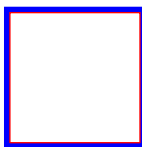
## **NORTHEASTERN**

May 1 snow surveys in the Peace region show that the lower elevation snowpack is beginning to melt off. Some higher snow courses to the south and west of Williston Lake continue to be above normal water content, but the overall basin snowpack is near normal.

In the Liard basin, the two snowcourses in the Yukon both continue to report above normal for this date, but this is still not that much snow/water content. The rest of the basin has lost much of the lower elevation snow, while the long term Sikanni Lake snowcourse at the southern edge reports 90% of normal water equivalent.

Precipitation measured at the few weather stations in northeast BC was near normal in April, with overall seasonal totals since November just above normal in the Peace and near normal in the Liard. April mean temperatures were a bit above normal.

April inflow to Williston Lake was 59% above normal. Runoff volume to the end of September is forecast to be 105% of normal in the Peace, and somewhat lower in the Liard. Volume forecasts assume normal temperatures and rainfall during the forecast period.

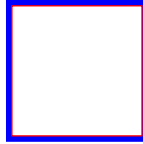


[Data Graphs](#)

## **NORTHWESTERN**

The month of April had normal depletion of the snowpack in northwestern BC. The May 1 snowpack in the Skeena-Nass Region continues to be slightly above average, while the Stikine basin continues to have a below normal snowpack. Precipitation at weather stations was highly variable in different parts of the region, but below normal overall during April. The total precipitation since November is just normal after much variability over this period. Mean monthly temperatures for March were just above normal.

Regional runoff is indicated by the Skeena River at Usk, which was 131% of normal for April. Seasonal runoff through September is forecast to be normal, assuming also normal weather during that period.



[Data Graphs](#)

Volume  
Runoff  
Forecasts

[Volume Runoff Forecasts](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



**FRASER**

May 1, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER FRASER</b>											
PRINCE GEORGE A	1A10	690	29	NO SNOW	-	-	216	0	9*	34	
PACIFIC LAKE	1A11	770	27	156	691	298	735	950	93	558	34
BURNS LAKE	1A16	800	05	NO SNOW	-	76	148	0	12*	28	
CANOE RIVER	2A01A	910	26	NO SNOW	-	-	147	0	24*	19	
PHILIP LAKE	4A13	980	28	59	240	132	329	406	0	228	35
HEDRICK LAKE	1A14	1100	27	186	876	458	870	1090A	263	682	32
BIRD CREEK	1A23	1180	30	15	54	0	0Z	82	0	19*	9
KAZA LAKE	1A12	1190	28	81	307	294	375	470	201	337	33
LU LAKE	4B15	1300	27	76	280	196E	444	444	180	279	19
FORFAR CREEK (UPPER)	1A24	1410	28	143	616	542	790	790	462	622*	5
EQUITY MINE	4B14	1420	27	88	326	310	620	620	212	345	21
MOUNT SHEBA	4A18	1490	27	229	1081	718	1251	1251	503	865	30
BARKERVILLE	1A03	1520	28	103	467	116	-	599	116	378	47
BARKERVILLE	1A03P	1520	01	-	458	240	439	604	169	376	22
MC BRIDE (UPPER)	1A02	1580	26	129	483	302	445	790	241	476	31
KNUDSEN LAKE	1A15	1580	27	210	952	721	913	1346A	501	918	30
NARROW LAKE	1A21	1650	28	258	1210	807	1266	1414	648	1015	24
REVOLUTION CREEK	1A17P	1690	01	-	874	517	861	1211	517	877	13
LONGWORTH (UPPER)	1A05	1740	27	196	876	644	1132	1476A	391	861	46



DOME MOUNTAIN	1A19	1820	26	224	987	632	897	1138	452	889	26
MARMOT JASPER	AL12	1830	29	86	305	135	249	401	0	230*	27
YELLOWHEAD	1A01	1860	26	155	680	324	594	805A	318	547	48
YELLOWHEAD	1A01P	1860	01	-	836	401	364	401	364	383*	2
HOLMES RIVER	1A18	1900	26	220	876	575	853	1140	518	838	28
<b>NECHAKO</b>											
SKINS LAKE	1B05	880	30	NO SNOW	0	OZ	100	0	6*	30	
TAHTSA LAKE	1B02	1300	30	310	1544	1102	1424	1770	701	1202	47
TAHTSA LAKE	1B02P	1300	01	-	1753	1375	1658	1658	866	1308*	6
KIDPRICE LAKE	4B01	1370	30	212	1067	732	1173	1367	551	919	47
MOUNT PONDOSY	1B08P	1400	01	-	969	796	1021	1021	546	783*	6
MOUNT WELLS	1B01	1490	30	120	535	316	640	958	309	530	44
MOUNT WELLS	1B01P	1490	01	-	558	475	792	792	475	590	7
NUTLI LAKE	1B07	1490	30	114	504	331	660	693	331	524*	8
MOUNT SWANNELL	1B06	1620	30	101	409	109	406Z	450	109	286*	10
<b>MIDDLE FRASER</b>											
BROOKMERE	1C01	980	29	55	195	34	238	419	0	117	52
NAZKO	1C08	1070	05	NO SNOW	-	-	46	0	4*	19	
BIG CREEK	1C21	1140	25	NO SNOW	-	-	48	0	24*	2	
GRANITE MOUNTAIN	1C33	1150	30	13	50	0	75	75	0	20*	6
LAC LE JEUNE (LOWER)	1C07	1370	29	21	73	5	60	163	0	23*	41
CONANT LAKE	1C31	1370	28	38	156	96	158	223	0	121	17
BRIDGE GLACIER (LOWER)	1C39	1400	26	221	1018	612	708	708	612	671*	3
DEADMAN RIVER	1C32	1430	28	32	93	6	39	121	0	58	15
BRALORNE	1C14	1450	26	61	255	0	142	218	0	76	35
SHOVELNOSE MOUNTAIN	1C29	1450	28	61	274	157	198	302	0	137	19
BONAPARTE LAKE	1C34	1450	28	105	540	270A	378	378	250	306*	6
BOSS MOUNTAIN MINE	1C20P	1460	01	-	829	491	746	810	473	617	5

BRENDA MINE	2F18	1460	28	67	287	228	344	526	0	234	30
BRENDA MINE	2F18P	1460	01	-	222	99	273	279	0	179	6
LAC LE JEUNE (UPPER)	1C25	1460	29	36	136	29	94	117A	0	27*	26
HIGHLAND VALLEY	1C09A	1510	28	30	74	0	132	142	0	32	33
BARKERVILLE	1A03	1520	28	103	467	116	-	599	116	378	47
BARKERVILLE	1A03P	1520	01	-	458	240	439	604	169	376	22
HORSEFLY MOUNTAIN	1C13A	1550	25	140	676	274	590	676	136	430	28
GNAWED MOUNTAIN	1C19	1580	28	46	120	38	152	241	0	102	31
GREEN MOUNTAIN	1C12	1630	Not Measured			-	783	1234	320	687	33
MOUNT TIMOTHY	1C17	1660	27	110	471	184	371	536	118	311	36
YANKS PEAK EAST	1C41P	1670	01	-	1039	724	1024	1024	724	874*	2
PENFOLD CREEK	1C23	1680	28	284	1343	1037	1258	1420	796	1074	26
YANKS PEAK	1C24	1710	28	219	1065	674	992	1057	500	821	27
GREEN MOUNTAIN	1C12P	1780	01	-	1341	820	1088	1088	807	962*	5
MCGILLIVRAY PASS	1C05	1800	26	188	918	504	754	1118	302	614	46
MISSION RIDGE	1C18P	1850	01	-	963	326	613	877	313	592	12
DOWNTON LAKE (UPPER)	1C38	1890	26	286	1340	860	914	1018	860	931*	3
TYAUGHTON CREEK (NORTH)	1C40	1950	26	163	806	312	544	544	312	444*	3
PAVILION MOUNTAIN	1C36	1960	29	120	292	238	-	240	196	225*	3
BRALORNE (UPPER)	1C37	1980	26	212	1002	548	868	868	548	746*	3
<b>LOWER FRASER</b>											
SUMMALLO RIVER WEST	3D01C	790	02	43	162	0	348	348	0	50*	7
BROOKMERE	1C01	980	29	55	195	34	238	419	0	117	52

DISAPPOINTMENT LAKE	1D18P	1040	Not Available			-	-	1920	1920	1920*	1
CALLAGHAN CREEK	3A20	1040	01	306	1568	650	990	1565	256	933	21
DICKSON LAKE	1D16	1070	28	595	3182	1420	2140	2140	604	1297*	8
DOG MOUNTAIN	3A10	1080	30	530	2860	973	1475	1475	122	1384	15
BEAVER PASS	WA12	1120	29	315	1600	569	1074	1590	135	759*	50
KLESILKWA	3D03A	1130	28	97	444	0	349	752	0	176	26
STAVE LAKE	1D08	1210	28	600	3120	1520	1780	2695	796	1747	32
WAHLEACH LAKE	1D09	1400	28	238	1002	624	885	1417	177	735	32
WAHLEACH LAKE	1D09P	1400	01	-	1582	988	1585	1585	509	915*	7
NAHATLATCH RIVER	1D10	1520	28	533	2720	1321	1514	2362	940	1539	31
EASY PASS	WA13	1580	Not Available			-	-	3414	1072	2195*	28
CHILLIWACK RIVER	1D17P	1600	27	464	2405P	1223	1780E	1780E	925	1660	6
GREAT BEAR	1D15	1660	28	485	2444	-	-	2166	1070	1478*	11
GREAT BEAR	1D15P	1660	01	-	2314	1634	2487	2487	1370	1674	7
TENQUILLE LAKE	1D06	1680	01	350	1762	1085	1448	1814	676	1227	42
<b>NORTH THOMPSON</b>											
BLUE RIVER	1E01B	670	04	23	98	0	265	265	0	21*	16
COOK FORKS	1E06	1390	30	263	1309	691	1018	1438	579	904	35
BOSS MOUNTAIN MINE	1C20P	1460	01	-	829	491	746	810	473	617	5
MOUNT COOK	1E02A	1580	30	367	1758	1283	1539	1615	927	1339	25
AZURE RIVER	1E08	1620	28	314	1527	1108	1329	1491	766	1120	29
AZURE RIVER	1E08P	1620	01	-	1620	1208	1459	1459	1208	1334*	2
ADAMS RIVER	1E07	1720	29	248	1089	742	839	1173	396	793	28
KOSTAL LAKE	1E10P	1770	01	-	1256	911	1100	1100	733	921	14
TROPHY MOUNTAIN	1E03A	1860	30	220	960	616	694	803	417	604	23
NORTH CLEMINA CREEK	1E13	1860	28	258	1099	756	879	1115	579	877*	10
<b>SOUTH THOMPSON</b>											

ANGLEMONT	1F02	1190	04	50	243	70E	496	496	0	233	41
ABERDEEN LAKE	1F01A	1310	27	NO SNOW		0	77	144	0	37	45
MONASHEE PASS	2E01	1370	28	83	356	231	442	505	67	305	41
BOULEAU LAKE	2F21	1400	25	96	396	182	384	488	95	320	27
ADAMS RIVER	1E07	1720	29	248	1089	742	839	1173	396	793	28
KIRBYVILLE LAKE	2A25	1750	29	353	1797	1092	1422	1793	770	1233	27
SILVER STAR MOUNTAIN	2F10	1840	29	206	954	653	925	1135	371	733	40
PARK MOUNTAIN	1F03P	1890	01	-	1247	782	1343	1343	653	956	14
ENDERBY	1F04	1900	27	312	1403	1000	1430	1430	700	1085	36

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE

**COASTAL***May 1, 1999***Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>SOUTH COASTAL</b>											
PALISADE LAKE	3A09	880	29	666	3598	1100	1533Z	2852	0	1595	46
PALISADE LAKE	3A09P	880	Not Available			-	-	-	-	-	0
CHAPMAN CREEK	3A26	1022	Not Measured			1430	1506Z	1710	756	1254*	6
CALLAGHAN CREEK	3A20	1040	01	306	1568	650	990	1565	256	933	21
DOG MOUNTAIN	3A10	1080	30	530	2860	973	1475	1475	122	1384	15
GROUSE MOUNTAIN	3A01	1100	27	564	2866	1136	1614	2426	120	1303	49
ORCHID LAKE	3A19	1190	28	712	3855A	1907	1985	3721A	900	2210	26
ORCHID LAKE	3A19P	1190	27	-	3862	-	-	2889	1058	2000*	13
UPPER SQUAMISH RIVER	3A25P	1340	30	563	2760P	1571	1766	1886	1153	1647	9
NOSTETUKO RIVER	3A22P	1500	01	-	917	-	549	780	207	494*	8
UPPER MOSELY CREEK	3A24P	1650	01	-	372	143	226	494	143	240	10

<b>VANCOUVER ISLAND</b>											
ELK RIVER	3B04	270	29	NO SNOW		0	0	0	0	-	21
WOLF RIVER (LOWER)	3B19	640	29	221	1118	154	196	798	0	224	29
TENNENT LAKE	3B22	950	Not Available			920E	1238Z	1238Z	0	998	14
UPPER THELWOOD LAKE	3B10	980	29	647	3727	1660	1822	2766	644	1672	38
MARGARET LAKE	3B21	1040	26	699	3840A	2180A	1974	2740	632	2013	23
WOLF RIVER (MIDDLE)	3B18	1070	29	357	1652	788	634	1229	0	611	28
FORBIDDEN PLATEAU	3B01	1130	29	672	3598	1805	1595	2728	448	1688	42
JUMP CREEK	3B23P	1160	Not Measured			1043	1545	1545	360	983*	3
MOUNT COKELY	3B02A	1190	28	440	2062	904	948	1494	274	912	19
SPROAT LAKE	3B20	1220	26	719	3810A	1810A	1955	2415	613	1746	23
SNO-BIRD LAKE	3B16	1400	28	600	3030	1417	1655	2367	294	1395	32
WOLF RIVER (UPPER)	3B17P	1490	Not Measured			1847	1420	1888	701	1388	11
<b>NORTH COASTAL</b>											
WEDEENE RIVER SOUTH	3C07	300	27	136	599	0	249	249	0	69*	14
TAHTSA LAKE	1B02	1300	30	310	1544	1102	1424	1770	701	1202	47
TAHTSA LAKE	1B02P	1300	01	-	1753	1375	1658	1658	866	1308*	6
BURNT BRIDGE CREEK	3C08P	1330	01	-	983	589	-	589	589	589*	1
<b>SKAGIT</b>											

SUMALLO RIVER WEST	3D01C	790	02	43	162	0	348	348	0	50*	7
FREEZEOUT CREEK TRAIL	WA11	1070	30	102	356	99	348	658	0	182*	47
BEAVER PASS	WA12	1120	29	315	1600	569	1074	1590	135	759*	50
KLESILKWA	3D03A	1130	28	97	444	0	349	752	0	176	26
LIGHTNING LAKE	3D02	1220	28	115	484	184	429	599	24	255	27
HARTS PASS	WA09	1980	28	340	1717	1044	1425	1847	531	1156*	55

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE

**COLUMBIA***May 1, 1999***Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER COLUMBIA</b>											
CANOE RIVER	2A01A	910	26	NO SNOW	-	-	147	0	24*	19	
DOWNIE SLIDE (LOWER)	2A27	980	29	184	900	350	910	910	0	638	22
GLACIER	2A02	1250	01	175	865	511	820	1247	320	719	53
FIELD	2A03A	1280	29	8	30	0	119	178	0	28	46
SUNWAPTA FALLS	AL11	1400	29	68	208	36	172	389	0	147*	28
VERMONT CREEK	2A19	1520	27	123	555	295	477	1026	140	447	33
AZURE RIVER	1E08	1620	28	314	1527	1108	1329	1491	766	1120	29
AZURE RIVER	1E08P	1620	01	-	1620	1208	1459	1459	1208	1334*	2
DOWNIE SLIDE (UPPER)	2A29	1630	29	429	2190A	1230	1744	1744	886	1314	20
KICKING HORSE	2A07	1650	29	97	381	228	406	589	63	324	52
KIRBYVILLE LAKE	2A25	1750	29	353	1797	1092	1422	1793	770	1233	27
MOUNT REVELSTOKE	2A06P	1830	01	-	1625	1072	1306	1502	874	1324	6
NORTH CLEMINA CREEK	1E13	1860	28	258	1099	756	879	1115	579	877*	10



FIDELITY MOUNTAIN	2A17	1870	01	312	1648	1063	1514	1986	817	1347	36
BEAVERFOOT	2A11	1890	28	69	234	135	300	495	66A	225	38
KEYSTONE CREEK	2A18	1890	29	297	1421	667	974	1372	565	879	33
GOLDSTREAM	2A16	1920	29	328	1561	1102	1367	1781	850	1204	36
BUSH RIVER	2A23	1920	29	240	1038	602	945	1392	538	892	31
NIGEL CREEK	AL10	1920	29	149	617	273	445	752	207	424*	29
MOUNT ABBOT	2A14	1980	03	348	1705	1091	1506	1811	853	1383	39
MOLSON CREEK	2A21P	1980	01	-	1181	856	1156	1230	746	1093	16
SUNBEAM LAKE	2A22	2010	29	262	1238	630	1021	1562	630	990	32
BOW SUMMIT II	AL07A	2080	04	117	490	254	450	597	201	380*	19
<b>LOWER COLUMBIA</b>											
FERGUSON	2D02	880	27	156	773	252	652	757	160	430	53
FARRON	2B02A	1220	28	65	280	218	355	406	23	235	26
MONASHEE PASS	2E01	1370	28	83	356	231	442	505	67	305	41
WHATSHAN (UPPER)	2B05	1480	28	175	869	495	898	983	255	587	38
BARNES CREEK	2B06	1620	28	131	655	437	714	742	211	499	38
BARNES CREEK	2B06P	1620	01	-	754	431	818	818	431	570*	6
ST. LEON CREEK	2B08	1800	28	362	1823	1123	1485	1974	914	1307	32
ST. LEON CREEK	2B08P	1800	01	-	1501	945	1309	1309	861	1193	5
KOCH CREEK	2B07	1860	28	244	1161	715	995	1201	391	808	38
RECORD MOUNTAIN	2B09	1890	01	256	1277	841	1028	1194	157	823	24
EAST CREEK	2D08P	2030	01	-	1346	708	983	1330	568	907	17
<b>EAST KOOTENAY</b>											
FERNIE EAST	2C07	1250	01	50	196	34	374	541	0	230	47

SINCLAIR PASS	2C01	1370	28	21	58	0	127	246	0	59	53
MARBLE CANYON	2C05	1520	27	94	354	195	407	612	102	296	52
BRUSH CREEK TIMBER	MT03	1520	30	8	28	0	173	417	0	150*	48
SULLIVAN MINE	2C04	1550	26	76	335	91	408	518	0	262	53
WEASEL DIVIDE	MT02	1660	30	208	1021	565	1201	1422	348	841*	59
KIMBERLEY (MIDDLE) V O R	2C12	1680	28	61	255	114	362	483	0	238	30
MOUNT JOFFRE	2C16	1750	28	110	461	336	539	772	180	370	30
MORRISSEY RIDGE	2C09Q	1800	Not Measured			461	-	1345	317	784	14
RED MOUNTAIN	MT04	1830	28	114	559	277	678	841	0	443*	61
MOYIE MOUNTAIN	2C10P	1930	01	-	500E	240	-	674	18	346*	19
ALLISON PASS	AL01	1980	27	125	569	394	612	838	287	479*	12
WILKINSON SUMMIT (BUSH)	AL03	1980	27	73	254	163	173	279	23	179*	10
THUNDER CREEK	2C17	2010	28	101	359	221	390	556	163	297	30
FLOE LAKE	2C14	2090	28	251	1110	579	1008	1369	511	820	30
FLOE LAKE	2C14P	2090	01	-	1035	548	934	934	481	726	4
KIMBERLEY (UPPER) V O R	2C11	2140	28	147	616	313	674	935	188	538	30
HIGHWOOD SUMMIT (BUSH)	AL02	2210	27	131	503	315	513	726	221	460*	34
MOUNT ASSINIBOINE	2C15	2230	28	190	777	461	684	930	366	586	30
SUNSHINE VILLAGE	AL05	2230	04	189	798	391	716	1092	338	638*	32

**WEST  
KOOTENAY**

DUNCAN LAKE NO. 2	2D07A	650	27	NO SNOW		-	42	42	0	21*	2
FERGUSON	2D02	880	27	156	773	252	652	757	160	430	53
NELSON	2D04	930	26	93	409	64	508	508	0	171	43
SANDON	2D03	1070	28	42	212	0	237	399	0	103	50
CHAR CREEK	2D06	1310	01	155	725	344	758	838	79	484	32
BUNCHGRASS MEADOW	WA01	1520	Not Available			-	-	1219	165	665*	55
GRAY CREEK (LOWER)	2D05	1550	29	141	654	401	630	726	229	471	50
ARROW CREEK	2D11	1620	30	250	1284	-	988	988	524	697	7
KOCH CREEK	2B07	1860	28	244	1161	715	995	1201	391	808	38
MOUNT TEMPLEMAN	2D09	1860	28	290	1461	825	-	1679	785	1167	31
GRAY CREEK (UPPER)	2D10	1910	29	227	1114	656	994	1300	518	856	30
EAST CREEK	2D08P	2030	01	-	1346	708	983	1330	568	907	17
<b>KETTLE</b>											
TRAPPING CREEK (LOWER)	2E05	930	01	NO SNOW		0	0	0	0	-	27
FARRON	2B02A	1220	28	65	280	218	355	406	23	235	26
CARMI	2E02	1250	01	NO SNOW		0	74	173	0	36	35
TRAPPING CREEK (UPPER)	2E04A	1350	01	2	9	0	116	116	0	14*	15
MONASHEE PASS	2E01	1370	28	83	356	231	442	505	67	305	41
BIG WHITE MOUNTAIN	2E03	1680	01	137	620	444	648	762	237	474	33
GRANO CREEK	2E07P	1860	01	-	806	578	-	578	578	578*	1
BLUEJOINT MOUNTAIN	2E06	2040	28	250	1201	743	1002	1186	287	784	23
<b>OKANAGAN</b>											
SUMMERLAND RESERVOIR	2F02	1280	30	30	129	37	220	368	0	141	34

MC CULLOCH	2F03	1280	28	NO SNOW		0	7	188	0	51	53
ABERDEEN LAKE	1F01A	1310	27	NO SNOW		0	77	144	0	37	45
OYAMA LAKE	2F19	1340	01	20	74	53	109	185	0	66	29
POSTILL LAKE	2F07	1370	29	48	198	91	182Z	282	0	144	47
BOULEAU LAKE	2F21	1400	25	96	396	182	384	488	95	320	27
VASEUX CREEK	2F20	1400	03	5	22	52	90	192	0	68	28
TROUT CREEK	2F01	1430	01	16	65	10E	117	386	0	110	51
ESPERON CR (MIDDLE)	2F14	1430	01	91	432	160	336	551	0	252	29
BRENDA MINE	2F18	1460	28	67	287	228	344	526	0	234	30
BRENDA MINE	2F18P	1460	01	-	222	99	273	279	0	179	6
ISLAHT LAKE	2F24	1480	27	97	450	213	367	399	66	271	17
GREYBACK RESERVOIR	2F08	1550	03	52	159	156	247	386	0	190	27
ESPERON CR (UPPER)	2F13	1650	01	121	578	290	498	805	119	385	29
ISINTOK LAKE	2F11	1680	28	50	183	62	169	437	0	142	34
MACDONALD LAKE	2F23	1740	28	146	650	445	548	622	198	441	22
MISSION CREEK	2F05P	1780	01	-	784	405	-	726	140	468	27
GRAYSTOKE LAKE	2F04	1810	28	128	490	240	504	940	120	431	28
MOUNT KOBAN	2F12	1810	29	135	501	424	393	597	53	333	33
WHITEROCKS MOUNTAIN	2F09	1830	30	192	868	385	629	1013	175	529	28
SILVER STAR MOUNTAIN	2F10	1840	29	206	954	653	925	1135	371	733	40
<b>SIMILKAMEEN</b>											
BROOKMERE	1C01	980	29	55	195	34	238	419	0	117	52
FREEZEOUT CREEK TRAIL	WA11	1070	30	102	356	99	348	658	0	182*	47

LIGHTNING LAKE	3D02	1220	28	115	484	184	429	599	24	255	27
HAMILTON HILL	2G06	1490	03	67	286	140	399	838	0	302	39
MISSEZULA MOUNTAIN	2G05	1550	28	61	240	10E	202	323	0	165	34
ISINTOK LAKE	2F11	1680	28	50	183	62	169	437	0	142	34
LOST HORSE MOUNTAIN	2G04	1920	26	88	298	196	326	554	64	248	38
BLACKWALL PEAK	2G03P	1940	01	-	1279	623	1121	1566	375	886	31
HARTS PASS	WA09	1980	28	340	1717	1044	1425	1847	531	1156*	55

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE

**NORTH**

May 1, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>PEACE</b>											
PACIFIC LAKE	1A11	770	27	156	691	298	735	950	93	558	34
BULLHEAD MOUNTAIN	4A28	790	Not Available			0	0	0	0	-	14
PHILIP LAKE	4A13	980	28	59	240	132	329	406	0	228	35
MC LEOD LAKE	4A01	980	28	20	72	8	238	267	0	102	39
WARE (LOWER)	4A04	980	29	37	114	78	119	229	0	139	33
AIKEN LAKE	4A30P	1040	01	-	185	131	191	276	71	168*	12
TUTIZZI LAKE	4A06	1070	28	51	203	92	126	325	0	173	35
TSAYDAYCHI LAKE	4A12	1160	28	112	470	322	472	625	168	381	36
PINK MOUNTAIN	4A14	1170	02	NO SNOW		14	86	151	0	48	35
KAZA LAKE	1A12	1190	28	81	307	294	375	470	201	337	33
PULPIT LAKE	4A09	1310	29	97	382	330E	374	560	287	417	34
FREDRICKSON LAKE	4A10	1310	28	54	190	128	220	358A	128	237	35
PULPIT LAKE	4A09P	1310	01	-	366	356	387	500	308	407	8
PINE PASS	4A02P	1400	01	-	1137	1030	1262	1537	1030	1221	7
TRYGVE LAKE	4A11	1400	28	87	326	311	339	495	272	381	35
SIKANNI LAKE	4C01	1400	29	63	234	191	240	360	115	261	35

PINE PASS	4A02	1430	27	280	1376	1235	1365	1732	681	1222	38
MORFEE MOUNTAIN	4A16	1450	27	183	865	741	935	1181A	410	830	28
LADY LAURIER LAKE	4A07	1460	29	132	511	470	503	747	305	529	36
MOUNT SHEBA	4A18	1490	27	229	1081	718	1251	1251	503	865	30
GERMANSEN (UPPER)	4A05	1500	28	108	400	285	410	597	181	350	37
MOUNT STEARNS	4A21	1500	29	39	115	140A	140	271	0	161	25
JOHANSON LAKE	4B02	1540	28	72	263	270	289	418	143	299	36
MONKMAN CREEK	4A20	1550	Not Measured			449	725	1016	329	649	22
WARE (UPPER)	4A03	1570	29	94	303	290	245	402	141	260	35
BULLMOOSE CREEK	4A31	1570	04	136	569	297	592	695	294	496*	11
KWADACHA RIVER	4A27P	1620	01	-	379	-	325	476	259	370	12
<b>SKEENA/NASS</b>											
TERRACE A	4B13A	180	28	17	58	-	0	0	0	-	19
BEAR PASS	4B11A	460	03	124	566	256	494Z	859	256	637	14
NINGUNSAW PASS	4B10	690	30	80	360	0	276Z	547	0	254	23
MCKENDRICK CREEK	4B07	1050	28	63	253	201	350	422	80	254	31
TACHEK CREEK	4B06	1140	29	50	187	148	318	318	69	174	29
KAZA LAKE	1A12	1190	28	81	307	294	375	470	201	337	33
LU LAKE	4B15	1300	27	76	280	196E	444	444	180	279	19
LU LAKE	4B15P	1310	01	-	240	176	-	176	176	176*	1
TSAI CREEK	4B17P	1360	01	-	1343	1155	-	1155	1155	1155*	1

KIDPRICE LAKE	4B01	1370	30	212	1067	732	1173	1367	551	919	47
TRYGVE LAKE	4A11	1400	28	87	326	311	339	495	272	381	35
EQUITY MINE	4B14	1420	27	88	326	310	620	620	212	345	21
CHAPMAN LAKE	4B04	1460	28	115	470	446	689	749	308	485	33
HUDSON BAY MTN.	4B03A	1480	29	108	458	460	707	787	363	532	27
MOUNT CRONIN	4B08	1480	28	153	636	600	807	1125	422	670	30
SHEDIN CREEK	4B16P	1480	01	-	791	851	1065	1140	851	1019*	3
JOHANSON LAKE	4B02	1540	28	72	263	270	289	418	143	299	36
<b>LIARD</b>											
WATSON LAKE A	YK01	700	29	20	57	0	4	145	0	30*	28
FRANCES RIVER	YK02	730	29	34	73	0	44	237	0	68*	22
DEASE LAKE	4C03	820	30	NO SNOW		-	-	178	0	55	32
SUMMIT LAKE	4C02	1280	30	NO SNOW		0	0	200A	0	47*	33
DEADWOOD RIVER	4C09P	1300	01	-	107	67	85	207	27	112*	5
SIKANNI LAKE	4C01	1400	29	63	234	191	240	360	115	261	35
<b>STIKINE/ TAKU</b>											
SPEEL RIVER	AK03	80	27	292	1011	183	615	1240	51	661*	33
FORREST-KERR CREEK	4D08P	560	01	-	418	219	445	469	219	386*	7
TELEGRAPH CREEK	4D01	580	Not Available			-	0	163	0	28*	23
NINGUNSAW PASS	4B10	690	30	80	360	0	276Z	547	0	254	23
DEASE LAKE	4C03	820	30	NO SNOW		-	-	178	0	55	32



KINASKAN LAKE	4D11P	1020	01	-	235	226	280	487	216	376	8
TUMEKA CREEK	4D10P	1220	01	-	411	482	482	838	463	578	9
WADE LAKE	4D14P	1370	01	-	262	314	-	546	187	405	7
UPPER STIKINE	4D13P	1450	Not Measured			445	439	707	421	517	9
<b>YUKON</b>											
ATLIN LAKE	4E02A	730	29	NO SNOW		-	0	97	0	19*	13
LOG CABIN	4E01	880	29	83	244	324B	285Z	531	173	318	41
PINE LK AIRSTRIP	YK03	1010	27	71	199	212	175	327	89	186*	23
MONTANA MTN.	YK05	1020	29	35	101	-	-	191	0	105*	17
TAGISH	YK04	1080	30	35	92	92	105	205	0	105*	23

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

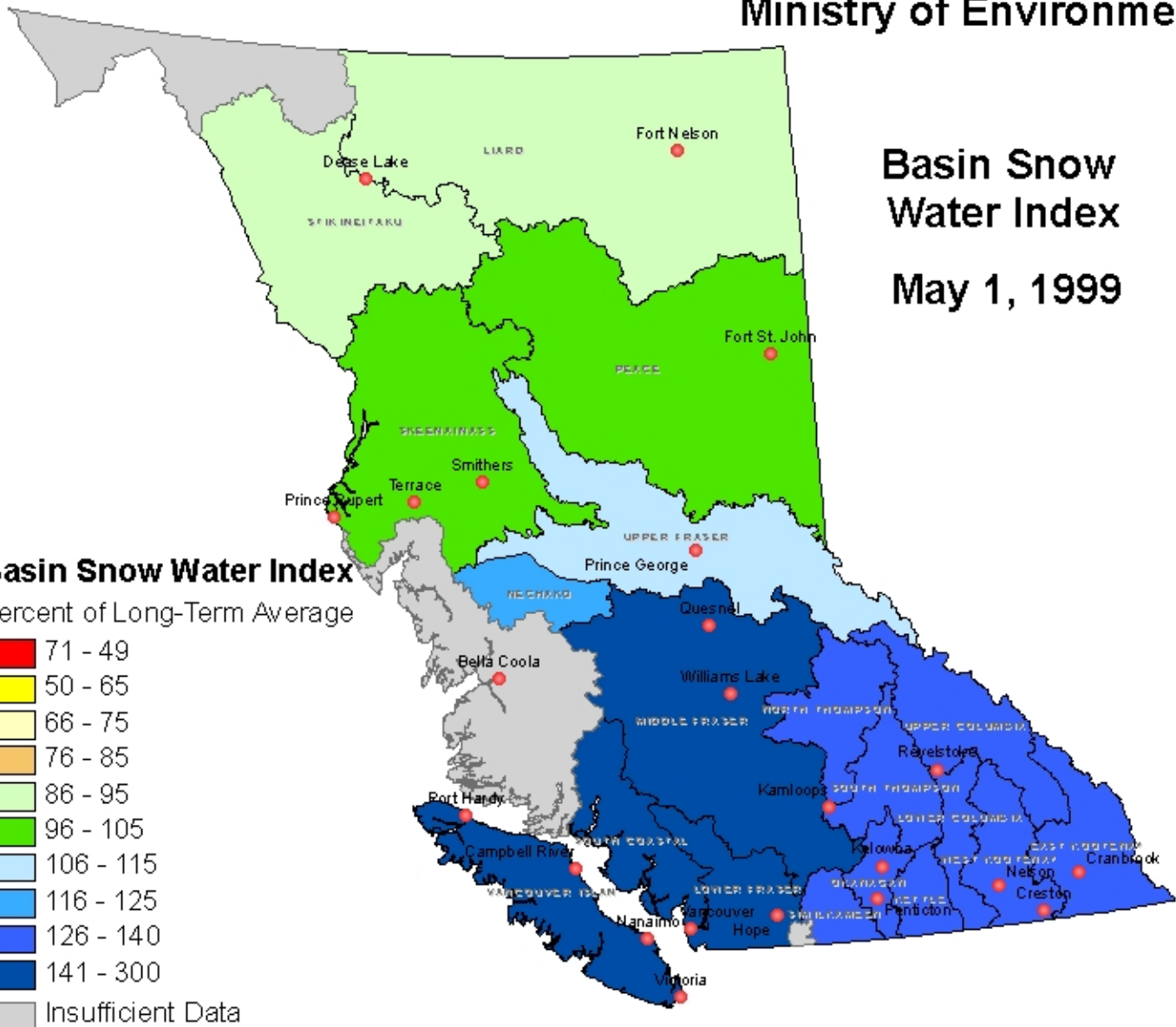
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE

# River Forecast Centre Ministry of Environment

## Basin Snow Water Index May 1, 1999

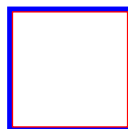


Banner

**May 15, 1999**Fraser  
Basin  
Snow[Fraser Basin Snow Survey Measurements](#)**UPPER FRASER AND NECHAKO**

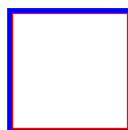
In contrast to last year when the first half of May was quite warm, the cool weather of the last two weeks has delayed any substantial melt. Several snow courses have actually gained water equivalent during the period. For example, Longworth Upper (1A05) which has 45 years of May 15 data, normally loses 59 mm of water in this period, but gained 108 mm this year.

River levels are generally below normal for this date. However, as a result of the lack of melt, the regional snowpack is now estimated to be 25% above normal. Rapid melting would result in sharp increases in water levels and flows.

[Data Graphs](#)**MIDDLE AND LOWER FRASER**

Depletions in the snowpack have been considerably below normal during the past two weeks and several snowcourses report record high readings for this date. For example Mount Timothy (1C17) and Penfold Creek (1C23) in the headwaters of the Williams Lake and Quesnel Rivers, respectively, each with 30 years of record, report record water equivalents for May 15.

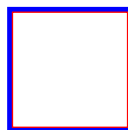
River levels throughout the area are below normal for this date. Levels will rise quite rapidly as soon as there is any sustained warmth. It would take several days of warmth for rivers to reach flood stage, but a rapid melt could result in higher flows than have been seen for many years.

[Data Graphs](#)**NORTH AND SOUTH THOMPSON**

Higher elevation snowpacks in the North and South Thompson basin have continued to accumulate snow during the first

half of May, when some depletion due to melt normally occurs. Several snow courses in the North Thompson basin report record high water equivalents for this date. The snowpack in the the South Thompson basin appears to be very similar to that reported in 1974 when most of the records were established.

River levels in the basin are generally below normal for this time of year and well below any damaging levels. With heavy and dense snowpacks, any rapid melting will bring river levels up very quickly. Under such conditions, it is quite possible that river levels could exceed the flows recorded in 1972, the last very high water year in the basin. However, no such sequence is foreseen in the weather forecasts for the next ten days or so.



[Data Graphs](#)

May 1 Volume Runoff Forecasts- see May 1 Snow Bulletin

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



Banner

**May 15, 1999**

Columbia  
Basin  
Snow

[Columbia Basin Snow Survey Measurements](#)

### UPPER AND LOWER COLUMBIA

A very limited snow survey indicates that snowpacks in the Columbia River basin remain well above normal for this date. Due to cool weather and the resulting delayed snowmelt, the overall basin snowpack water equivalent index is significantly higher than that reported May 1, at 38% above normal.

As reported May 1, there is still quite a difference between the eastern and western portions of the basin. While the eastern portions along the Rocky Mountains do have snowpacks generally above normal, record breaking snowpacks have been measured in the Selkirk Mountains from the West Kootenays to the Revelstoke area.

Rivers rose briefly in response to warmth in the third week in April, but have since dropped, due to the cool weather, to below normal levels. Any extended period of hot weather during the next month will bring a rapid melt of the snowpack.

Many of the main rivers in this basin are controlled by hydro-electric dams and should not be subject to damaging flooding. However, uncontrolled streams and rivers, particularly in the western parts of the basin, could see quite high water levels if there is a rapid melt.

Data  
Graphs

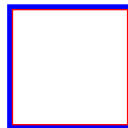
[Data Graph](#)

### EAST AND WEST KOOTENAY

Due to a slower than normal snowmelt, there has been an increase in the regional snowpack index for the Kootenay basin since May 1 and the index is now estimated to be 58% above normal, compared to 38% at the beginning of May. As with the Columbia basin, this is a function of a lack of snowmelt rather than a substantial increase in snowpack. This makes the comparison to other years, when the snowpack would normally be part way through the melt, appear more extreme.

There is a variation in general snowpack levels from east to west across the Kootenay region. The snowpack varies from being near normal in the Elk valley in the East Kootenays to showing many record levels for this date in the West Kootenays.

As noted above, many of the main rivers in this basin are controlled by hydro-electric dams and should not be subject to damaging flooding. However, uncontrolled streams and rivers, particularly in the western parts of the basin, could see high water levels if there is a rapid melt. A rapid melt could occur if temperatures rise to summer conditions for any extended period of time during the next month or six weeks.



[Data Graphs](#)

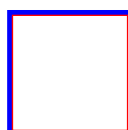
### OKANAGAN, KETTLE AND SIMILKAMEEN

The snowpacks in the Okanagan, Kettle and Similkameen valleys are well above normal for this date. The May 15 regional snow water equivalent index in the Okanagan-Kettle region has climbed to 81% above normal, and in the Similkameen to 57% above normal. Some snowpacks which are usually partway through melt by this date are still showing slight increases in water equivalent.

Cooler weather has reduced the Similkameen and Kettle River flows, with slightly higher than normal flows in the third week of April dropping to well below normal flows during the first two weeks in May. The large snowpack could cause damaging river levels if there is a rapid melt.

Releases from Okanagan Lake dam in Penticton have been high all spring, and the lake is lower than normal in anticipation of high runoff. Unless there are significant rainfalls, there should be sufficient storage in Okanagan Lake that the normal upper level is not exceeded. High flows in Okanagan River can be anticipated for at least the next six to eight weeks.

Those living adjacent to snowmelt fed rivers and lakes should be aware that warm weather can cause rapid rises in water levels and that, with the above normal snowpack reported this year, this is a more likely scenario than many other years.



[Data Graphs](#)

**Volume  
Runoff  
Forecasts**

May 1 Volume Runoff Forecasts see May 1 Bulletin

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



Banner

**May 15, 1999**

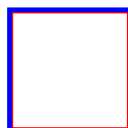
Snow  
Survey  
Measureme

[Coastal Basin Snow Survey Measurements](#)

### **SOUTH COASTAL AND VANCOUVER ISLAND**

The cool weather during the first half of May has resulted in less than normal depletion of the snowpack throughout the area. As a result, the record-breaking snowpacks remain in the mountains. For example, on the coast, Orchid Lake (3A19) which has a 19-year record at this date sets a new record 57% greater than previously recorded. Similarly, on Vancouver Island Sno-Bird Lake (3B16) which has a 29-year record at this date reports 20% greater water equivalent than its previous highest reading on this date.

Those living in flood prone areas and adjacent to snowmelt-fed creeks should be aware that any warm weather will bring streams up very rapidly as the snowpack density is very high. Unless weather conditions are exceptional, it is not expected that the larger rivers will exceed previously recorded levels.



[Data Graphs](#)

May 1  
Volume  
Runoff  
Forecasts

May 1 Volume Runoff Forecasts-see May 1 Snow Bulletin

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)

Banner

**May 15, 1999**

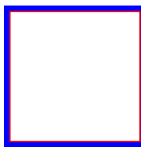
Snow  
Survey  
Measureme

[Northern Basins Snow Survey Measurements](#)

### **NORTHEASTERN**

The snowpack in the Peace River basin, based on the very few courses sampled, is slightly above normal for this date. A delayed snowmelt has caused the near normal snowpack reported on May 1 to remain longer than usual.

There is insufficient data to accurately assess the snowpack in the Liard basin, however the few measurements available show the melt at lower elevations is near completion, while the single higher elevation snow pillow, Deadwood River (4C09P) shows a delayed melt. Melt in the Yukon basin also appears to be slower than normal.



[Data Graphs](#)

### **NORTHWESTERN**

The slightly higher than normal snowpack reported on May 1 in the Skeena basin appears, from the small amount of data available, to have a slower than normal melt due to the cool weather. There is also little data available for the Stikine-Taku area, but the indications are that melt of the slightly below normal snowpack reported for May 1 is also somewhat delayed.

Water levels in the Skeena River, which were slightly above normal for the third week of April, dropped to well below normal for the first two weeks of May. As of May 15 the Skeena River flow is again increasing but still below normal for this date. Warmer weather and a more rapid melt of the snowpack could increase flows quickly.



**FRASER**

May 15, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER FRASER</b>											
PACIFIC LAKE	1A11	770	11	130	621	0	728	728	0	358	24
BARKERVILLE	1A03	1520	18	93	425	0	-	564	0	298	47
BARKERVILLE	1A03P	1520	15	-	450	0	326	503	0	282	21
MC BRIDE (UPPER)	1A02	1580	11	116	508	74	408	752	24	413	31
KNUDSEN LAKE	1A15	1580	11	207	1019	510	941	1205	359	873	24
NARROW LAKE	1A21	1650	12	271	1268	607	1238	1375	489	993	24
REVOLUTION CREEK	1A17P	1690	15	-	856	228	766	1161	228	757	13
LONGWORTH (UPPER)	1A05	1740	11	213	984	440	1204	1219	292	802	45
DOME MOUNTAIN	1A19	1820	11	219	1067	488	931	1168	385	859	26
YELLOWHEAD	1A01P	1860	15	-	825	139	326	326	139	233*	2
HOLMES RIVER	1A18	1900	11	202	952	411	903	1125	359	813	29
<b>NECHAKO</b>											
TAHTSA LAKE	1B02P	1300	15	-	1765	1116	1509	1509	732	1139*	6
MOUNT PONDOSY	1B08P	1400	15	-	960	524	850	850	314	576*	6
MOUNT WELLS	1B01P	1490	15	-	570	277	680	698	277	485	7
<b>MIDDLE FRASER</b>											
BROOKMERE	1C01	980	16	28	99	-	57	208	0	32*	23

LAC LE JEUNE (LOWER)	1C07	1370	14	4	14	-	0	0	0	-	4
BOSS MOUNTAIN MINE	1C20P	1460	15	-	761	184	521	709	184	502	5
LAC LE JEUNE (UPPER)	1C25	1460	14	18	67	-	0	0	0	-	3
BRENDA MINE	2F18P	1460	15	-	100	0	0	125	0	11	6
BARKERVILLE	1A03	1520	18	93	425	0	-	564	0	298	47
BARKERVILLE	1A03P	1520	15	-	450	0	326	503	0	282	21
MOUNT TIMOTHY	1C17	1660	13	106	466	22	244	437	0	225	30
YANKS PEAK EAST	1C41P	1670	15	-	1125	398	878	878	398	638*	2
PENFOLD CREEK	1C23	1680	12	284	1400	823	1225	1349	585	1008	29
GREEN MOUNTAIN	1C12P	1780	15	-	1366	573	978	1036	573	807*	5
MISSION RIDGE	1C18P	1850	15	-	878	6	372	701	0	468	12
PAVILION MOUNTAIN	1C36	1960	Not Measured			0	234	308	0	189*	4
<b>LOWER FRASER</b>											
BROOKMERE	1C01	980	16	28	99	-	57	208	0	32*	23
DISAPPOINTMENT LAKE	1D18P	1040	Not Available			-	-	1652	1652	1652*	1
DOG MOUNTAIN	3A10	1080	13	536	2920	703	1290	1507	0	1311	14
WAHLEACH LAKE	1D09P	1400	15	-	1624	683	1478	1478	335	730*	7
CHILLIWACK RIVER	1D17P	1600	Not Measured			934	-	1208	764	1443	5
GREAT BEAR	1D15P	1660	15	-	2363	1609	2436	2436	1181	1524	7
TENQUILLE LAKE	1D06	1680	16	361	1875	958	1372	1707	625	1182	42
<b>NORTH THOMPSON</b>											
COOK FORKS	1E06	1390	17	239	1193	274	878	1359	274	749	36
BOSS MOUNTAIN MINE	1C20P	1460	15	-	761	184	521	709	184	502	5
MOUNT COOK	1E02A	1580	17	371	1856	953	1485	1670	873	1292	24
AZURE RIVER	1E08P	1620	15	-	1665	1009	1496	1496	1009	1253*	2

ADAMS RIVER	1E07	1720	12	257	1158	523	861	1107	280	745	27
KOSTAL LAKE	1E10P	1770	15	-	1357	752	981	1120	588	914	14
TROPHY MOUNTAIN	1E03A	1860	15	248	1140	446	636	825	301	599*	17
NORTH CLEMINA CREEK	1E13	1860	Not Measured			606	990	1177	536	855*	9
<b>SOUTH THOMPSON</b>											
ANGLEMONT	1F02	1190	15	37	126	-	302	361	0	110	15
ADAMS RIVER	1E07	1720	12	257	1158	523	861	1107	280	745	27
SILVER STAR MOUNTAIN	2F10	1840	13	211	1009	386	848	1054	100	642	40
PARK MOUNTAIN	1F03P	1890	15	-	1298	584	1321	1321	474	916	14
ENDERBY	1F04	1900	15	315	1460	738	1437	1499	662	1099	36

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE

# COLUMBIA

May 15, 1999

## Snow Survey Measurements

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER COLUMBIA</b>											
AZURE RIVER	1E08P	1620	15	-	1665	1009	1496	1496	1009	1253*	2
KICKING HORSE	2A07	1650	12	82	354	-	362	521	0	230	44
MOUNT REVELSTOKE	2A06P	1830	15	-	1777	827	1458	1624	700	1221	6
NORTH CLEMINA CREEK	1E13	1860	Not Measured			606	990	1177	536	855*	9
MOLSON CREEK	2A21P	1980	15	-	1375E	710	1175	1294	602	1036	16
<b>LOWER COLUMBIA</b>											
FERGUSON	2D02	880	12	126	640	-	495	580B	20	213	34
FARRON	2B02A	1220	14	42	188	0	164	222	0	111	19
BARNES CREEK	2B06P	1620	15	-	761	94	679	758	94	374*	6
ST. LEON CREEK	2B08P	1800	15	-	1568	675	1219	1219	639	987	5
RECORD MOUNTAIN	2B09	1890	15	278	1367	368	1151	1151	83	732	24
EAST CREEK	2D08P	2030	15	-	1354	536	825	1387	461	877	17
<b>EAST KOOTENAY</b>											

FERNIE EAST	2C07	1250	14	16	70	0	90	290	0	61	37
SULLIVAN MINE	2C04	1550	14	57	255	0	272	457	0	123	47
MORRISSEY RIDGE	2C09Q	1800	15	-	873	30	749	971	0	580	15
MOYIE MOUNTAIN	2C10P	1930	15	-	500E	15	-	552	0	239*	18
FLOE LAKE	2C14P	2090	15	-	1088	304	893	1028	304	597	4
<b>WEST KOOTENAY</b>											
FERGUSON	2D02	880	12	126	640	-	495	580B	20	213	34
NELSON	2D04	930	14	50	243	-	184	184	0	24	38
CHAR CREEK	2D06	1310	15	148	715	26	607	676	0	248	29
GRAY CREEK (LOWER)	2D05	1550	11	143	658	-	-	709	0	385	46
GRAY CREEK (UPPER)	2D10	1910	11	231	1127	-	-	1194	311	770	27
EAST CREEK	2D08P	2030	15	-	1354	536	825	1387	461	877	17
<b>KETTLE</b>											
FARRON	2B02A	1220	14	42	188	0	164	222	0	111	19
BIG WHITE MOUNTAIN	2E03	1680	16	142	638	130	432	732	0	400	33
GRANO CREEK	2E07P	1860	15	-	855	308	-	308	308	308*	1
<b>OKANAGAN</b>											
SUMMERLAND RESERVOIR	2F02	1280	10	17	71	0	27	218	0	42	33
VASEUX CREEK	2F20	1400	13	No Snow		0	0	80	0	10*	27
TROUT CREEK	2F01	1430	14	4	14	0	0	307	0	39	46
ESPERON CR (MIDDLE)	2F14	1430	15	75	380	-	150	335	0	125	10
BRENDA MINE	2F18P	1460	15	-	100	0	0	125	0	11	6
ISLAHT LAKE	2F24	1480	14	71	352	-	181	181	181	181*	1
GREYBACK RESERVOIR	2F08	1550	13	41	151	0	52	323	0	122	27

ESPERON CR (UPPER)	2F13	1650	15	122	598	-	360	625	66	328*	8
ISINTOK LAKE	2F11	1680	11	38	145	0	50E	386	0	83	33
MISSION CREEK	2F05P	1780	15	-	829	176	-	706	0	399	27
MOUNT KOBAN	2F12	1810	14	127	516	250	323	513	0	260	32
WHITEROCKS MOUNTAIN	2F09	1830	12	186	909	200E	474	968	0	402	28
SILVER STAR MOUNTAIN	2F10	1840	13	211	1009	386	848	1054	100	642	40

**SIMILKAMEEN**

BROOKMERE	1C01	980	16	28	99	-	57	208	0	32*	23
MISSEZULA MOUNTAIN	2G05	1550	17	28	124	0	8E	218	0	66	35
ISINTOK LAKE	2F11	1680	11	38	145	0	50E	386	0	83	33
LOST HORSE MOUNTAIN	2G04	1920	13	79	294	18	220	577	4	211	35
BLACKWALL PEAK	2G03P	1940	15	-	1279	356	960	1481	208	804	31

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE

# COASTAL

*May 15, 1999*

## Snow Survey Measurements

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>SOUTH COASTAL</b>											
PALISADE LAKE	3A09	880	10	661	3600	-	-	1626	336	1011*	3
PALISADE LAKE	3A09P	880	Not Available			-	-	-	-	-	0
DOG MOUNTAIN	3A10	1080	13	536	2920	703	1290	1507	0	1311	14
ORCHID LAKE	3A19	1190	10	704	3618	-	2099	2310A	774	1891	19
ORCHID LAKE	3A19P	1190	Not Available			-	-	2804	828	1909*	12
UPPER SQUAMISH RIVER	3A25P	1340	Not Measured			1361	1628	1781	949	1515	9
NOSTETUKO RIVER	3A22P	1500	15	-	860	-	387	494	21	282*	8
UPPER MOSELY CREEK	3A24P	1650	15	-	402	0	37	347	0	114	10
<b>VANCOUVER ISLAND</b>											
JUMP CREEK	3B23P	1160	Not Measured			623	1358	1358	251	744*	3
SNO-BIRD LAKE	3B16	1400	10	589	2912	-	1404	2426A	417	1343	29

<b>WOLF RIVER (UPPER)</b>	3B17P	1490	Not Measured		1567	1390	1726	507	1318	11
-------------------------------	-------	------	--------------	--	------	------	------	-----	------	----

**NORTH  
COASTAL**

<b>TAHTSA LAKE</b>	1B02P	1300	15	-	1765	1116	1509	1509	732	1139*	6
------------------------	-------	------	----	---	------	------	------	------	-----	-------	---

<b>BURNT BRIDGE CREEK</b>	3C08P	1330	15	-	934	210	-	210	210	210*	1
-----------------------------------	-------	------	----	---	-----	-----	---	-----	-----	------	---

**SKAGIT**

- A - SAMPLING PROBLEMS WERE ENCOUNTERED
- B - EARLY OR LATE SAMPLING
- C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED
- E - ESTIMATED BASED ON AREAL AVERAGE
- \* - PERIOD OF RECORD AVERAGE



**NORTH**

May 15, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>PEACE</b>											
PACIFIC LAKE	1A11	770	11	130	621	0	728	728	0	358	24
AIKEN LAKE	4A30P	1040	15	-	62	0	8	188	0	42*	12
PULPIT LAKE	4A09P	1310	15	-	317	143	229	454	49	194*	8
PINE PASS	4A02P	1400	15	-	1210	878	1100	1471	813	1134	7
KWADACHA RIVER	4A27P	1620	15	-	443	-	251	468	109	329	13
<b>SKEENA/ NASS</b>											
TERRACE A	4B13A	180	14	No Snow	-	-	-	-	-	-	0
LU LAKE	4B15P	1310	15	-	225	11	-	11	11	11*	1
TSAI CREEK	4B17P	1360	15	-	1403	953	-	953	953	953*	1
HUDSON BAY MTN.	4B03A	1480	Not Available			160	467	752	160	463	26
SHEDIN CREEK	4B16P	1480	15	-	791	660	956	1159	660	925*	3
<b>LIARD</b>											
WATSON LAKE A	YK01	700	15	No Snow	-	-	45	0	3*	13	
FRANCES RIVER	YK02	730	14	No Snow	-	-	120	0	16*	14	

DEADWOOD RIVER	4C09P	1300	15	-	107	0	0	207	0	51*	5
<b>STIKINE/ TAKU</b>											
FORREST-KERR CREEK	4D08P	560	15	-	271	0	250	250	0	142*	7
KINASKAN LAKE	4D11P	1020	15	-	186	9	79	411	0	148*	8
TUMEKA CREEK	4D10P	1220	15	-	372	299	317	771	195	409	9
WADE LAKE	4D14P	1370	15	-	290	198	-	427	0	290	7
UPPER STIKINE	4D13P	1450	Not Measured			317	344	686	183	408*	9
<b>YUKON</b>											
LOG CABIN	4E01	880	12	57	227	-	-	420	4	239*	11
PINE LK AIRSTRIP	YK03	1010	13	49	158	-	-	284	0	98*	14
MONTANA MTN.	YK05	1020	11	29	81	-	-	142A	0	45*	12
TAGISH	YK04	1080	13	25	89	-	-	156	0	37*	14
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											

Banner

**June 1, 1999**

Snow  
Survey  
Measureme

[Coastal Basin Snow Survey Measurements](#)

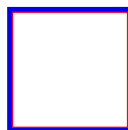
### **SOUTH COASTAL AND VANCOUVER ISLAND**

Cooler than normal weather during May has resulted in a delay of two or three weeks in initiation of significant melt of the record snowpacks throughout the area. Precipitation was above normal for the month. Regional runoff as represented by inflow to Upper Campbell Lake on Vancouver Island was near normal for the month of May.

On the south coast, the last two weeks of May has seen a decline in snowpack snow water equivalents at an approximately normal rate. However, snowpacks are still at record levels for this date due to the delay in onset of significant melting. The regional snow water index indicates that only about 7% of the high elevation snowpack has melted during the past month.

The melting pattern on Vancouver Island has been similar. Sno-Bird Lake (3B16), which has a 29-year record for June 1, reports a 21% greater water equivalent than its previous highest reading for this date, and actually gained new snow in the last two weeks.

Those living in flood prone areas and adjacent to snowmelt-fed creeks should be aware that any warm weather will bring streams up very rapidly as the snowpack density is very high. While peak spring flows, when they finally occur, will likely be higher and of longer duration than a normal freshet, it is unlikely that flows will exceed the extreme peaks of fall rainstorm events.



[Data Graphs](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)

Banner

**June 1, 1999**

Columbia  
Basin  
Snow

[Columbia Basin Snow Survey Measurements](#)

### UPPER AND LOWER COLUMBIA

Valley-bottom precipitation during May is reported to be 20% below normal, but the total precipitation since November remains well above normal. Temperatures during May were below normal. Due to the cooler weather snowmelt has been delayed by two or three weeks.

In the upper Columbia, all of the province's snow pillows at the mid to upper elevation range of the Selkirk Mountains indicate increases in the record snowpack through the last two weeks of May. In the lower Columbia, limited data indicates that mid elevation (900 to 1700 m) snowpacks have declined by approximately 50%. The two higher elevation pillows (2B08P St Leon Creek and 2D06P East Creek) have changed little in the last two weeks.

Rivers rose briefly in response to warmth over the May long weekend, but due to the cooler weather have since dropped back to below normal levels. Any extended period of hot weather during the next month will bring a rapid melt of the snowpack. Many of the main rivers in this basin are controlled by hydro-electric dams and should not be subject to damaging flooding. However, uncontrolled streams and rivers, particularly in the western parts of the basin, could still see quite high water levels if there is a rapid melt.

Data  
Graphs

[Data Graph](#)

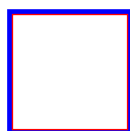
### EAST AND WEST KOOTENAY

Precipitation in the Kootenays has been near normal over the month of May, however cumulative November to May totals are still above normal. Temperatures in May were below normal, and this has resulted in slower than normal snowmelt.

The regional snow water index indicates that, for the Kootenays as a whole, approximately 27% of the mid to upper elevation snowpack has melted in the last month. As expected, from the record snowpacks reported for the West Kootenays in April and May, significantly more snow remains in the West Kootenays than in the East.

River flows, which rose in response to warmer temperatures over the May long weekend, have since fallen back to below normal levels. As noted above, many of the main rivers in this basin are controlled by hydro-electric dams and

should not be subject to damaging flooding. However, uncontrolled streams and rivers, particularly in the western parts of the basin, could still see high water levels if there is a rapid melt. A rapid melt could occur if temperatures rise to summer conditions for any extended period of time during the next two or three weeks.



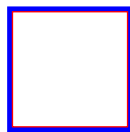
[Data Graphs](#)

## **OKANAGAN, KETTLE AND SIMILKAMEEN**

Precipitation above normal and mean temperatures almost 2 °C below normal have delayed the melt throughout the region. The warm weather experienced over the May 24 long weekend, however, allowed a substantial volume of snow to melt in all areas.

The remaining high elevation snow pack is well above normal which is largely a measure of the lateness of the melt. Another prolonged warm spell could bring the Similkameen and Kettle Rivers to higher levels than have occurred to date this year, but extreme levels now appear to be unlikely.

Okanagan lake is currently about half a metre below its full elevation and rising steadily. Unless there is substantial precipitation, it is expected that the lake will peak around the end of the month at close to its normal peak elevation.



[Data Graphs](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



Banner

**June 1, 1999**

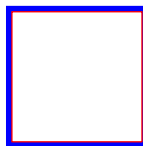
Snow  
Survey  
Measuremen

[Northern Basins Snow Survey Measurements](#)

### **NORTHEASTERN**

The snowpack in the Peace River basin, based on the few courses sampled, is well above normal for this date. A delayed snowmelt has caused the near normal snowpack reported on May 1 to remain much longer than usual. Higher elevation snow pillows, (4A02P Pine Pass and 4A27P Kwadacha River), have actually shown a slight increase in snow water equivalent during the month of May. A prolonged warm spell in June could cause snowmelt-fed rivers to rise rapidly.

There is insufficient data to accurately assess the snowpack in the Liard basin. The single snow pillow, (4C09P Deadwood River) shows a higher than normal melt rate for the last two weeks of May, however delay of the start of melt has left a higher than normal amount of snow for this date. No data is available for the Yukon basin.



[Data Graphs](#)

### **NORTHWESTERN**

While lower elevation snow is melting, the slightly higher than normal snowpacks reported on May 1 in the Skeena basin have shown very little melt at the mid to upper elevations. Temperatures have been cooler than normal for May, with higher than normal precipitation. The Stikine-Taku basins appear to have had a near normal rate of melt during the last two weeks of May, however the delay in start of the melt has left a higher than normal snowpack for this date.

Water levels in the Skeena River rose to above normal in response to rain on the long weekend, but have since dropped back to below normal for the last week of May. Warmer weather and a more rapid melt of the snowpack could increase flows quickly, but damaging levels seem unlikely on the main rivers.

**FRASER**

June 1, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER FRASER</b>											
PACIFIC LAKE	1A11	770	26	71	347	0	348	348	0	70*	25
BIRD CREEK	1A23	1180	Not Available			0	0Z	0	0	-	5
BARKERVILLE	1A03	1520	29	48	254	0	-	417	0	145	47
BARKERVILLE	1A03P	1520	01	-	236	0	0	291	0	120	15
MC BRIDE (UPPER)	1A02	1580	26	77	377	0	129	592	0	266	31
KNUDSEN LAKE	1A15	1580	26	179	945	0	787	1039	0	762	24
NARROW LAKE	1A21	1650	27	248	1270	116	1007	1339	116	855	25
REVOLUTION CREEK	1A17P	1690	01	-	723	0	508	820	0	514	14
LONGWORTH (UPPER)	1A05	1740	26	188	940	0	956	1194	0	630	42
DOMM MOUNTAIN	1A19	1820	26	197	1047	0	785	1062	0	760	27
YELLOWHEAD	1A01P	1860	01	-	857	0	233	233	0	117*	2
HOLMES RIVER	1A18	1900	26	180	897	84	766	1029	84	748	28
<b>NECHAKO</b>											
SKINS LAKE	1B05	880	04	No Snow		0	0Z	0	0	-	10
TAHTSA LAKE	1B02	1300	04	247	1391	551	1133B	1651	535	971	24
TAHTSA LAKE	1B02P	1300	01	-	1576	652	1140	1140	277	768*	6
KIDPRICE LAKE	4B01	1370	04	156	913	0	805Z	1209	0	680	24
MOUNT PONDOSY	1B08P	1400	01	-	689	0	424	424	0	176*	6
MOUNT WELLS	1B01	1490	04	59	270	0	479B	488	0	238	22

MOUNT WELLS	1B01P	1490	01	-	369	0	418	463	0	298	7
NUTLI LAKE	1B07	1490	04	72	361	0	418B	594	0	186*	8
MOUNT SWANNELL	1B06	1620	04	64	287	0	350Z	350Z	0	79*	10
<b>MIDDLE FRASER</b>											
BOSS MOUNTAIN MINE	1C20P	1460	01	-	431	0	116	435	0	248	5
BRENDA MINE	2F18P	1460	Not Measured			0	0	0	0	-	6
BARKERVILLE	1A03	1520	29	48	254	0	-	417	0	145	47
BARKERVILLE	1A03P	1520	01	-	236	0	0	291	0	120	15
MOUNT TIMOTHY	1C17	1660	26	72	332	0	0	325	0	56*	31
YANKS PEAK EAST	1C41P	1670	01	-	1016	-	555	555	555	555*	1
PENFOLD CREEK	1C23	1680	27	254	1354	460	972	1179	353	849	28
GREEN MOUNTAIN	1C12P	1780	01	-	1183	229	753	887	229	532*	5
MISSION RIDGE	1C18P	1850	01	-	573	0	70	314	0	151	11
<b>LOWER FRASER</b>											
DISAPPOINTMENT LAKE	1D18P	1040	Not Available			-	-	1087	1087	1087*	1
CALLAGHAN CREEK	3A20	1040	30	219	1228	48	78	1128	0	424	15
DOG MOUNTAIN	3A10	1080	02	452	2480	518	885	1115	56	999	12
BEAVER PASS	WA12	1120	27	249	1270	180	714	714	0	260*	5
STAVE LAKE	1D08	1210	30	563	3150A	-	-	2367	635	1509*	5
WAHLEACH LAKE	1D09P	1400	01	-	1359	488	1006	1006	0	399*	6
NAHATLATCH RIVER	1D10	1520	30	450	2560A	-	-	2416	706	1184	8
CHILLIWACK RIVER	1D17P	1600	Not Measured			841	-	1099	237	905	4
GREAT BEAR	1D15P	1660	01	-	2378	1226	2007	2007	908	1179	7
TENQUILLE LAKE	1D06	1680	30	311	1790	595	1100	1654	365	1030	43
<b>NORTH THOMPSON</b>											
COOK FORKS	1E06	1390	31	178	943	0	554	1026	0	458	36



BOSS MOUNTAIN MINE	1C20P	1460	01	-	431	0	116	435	0	248	5
MOUNT COOK	1E02A	1580	31	319	1744	619	1231	1575	377	1125	25
AZURE RIVER	1E08P	1620	01	-	1778	530	1283	1283	530	907*	2
ADAMS RIVER	1E07	1720	26	231	1155	290	659	1123	0	645	29
KOSTAL LAKE	1E10P	1770	01	-	1377	408	914	1113	155	753	14
NORTH CLEMINA CREEK	1E13	1860	26	222	1135	393	862	1058	318	725*	10
<b>SOUTH THOMPSON</b>											
ADAMS RIVER	1E07	1720	26	231	1155	290	659	1123	0	645	29
SILVER STAR MOUNTAIN	2F10	1840	27	176	908	250	631	980	0	409	40
PARK MOUNTAIN	1F03P	1890	01	-	1269	296	1152	1228	296	811	13
ENDERBY	1F04	1900	31	279	1410	549	1157	1422	430	985	35
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											

# COLUMBIA

*June 1, 1999*

## Snow Survey Measurements

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER COLUMBIA</b>											
AZURE RIVER	1E08P	1620	01	-	1778	530	1283	1283	530	907*	2
MOUNT REVELSTOKE	2A06P	1830	01	-	2063	562	1200	1631	240	995	6
NORTH CLEMINA CREEK	1E13	1860	26	222	1135	393	862	1058	318	725*	10
MOLSON CREEK	2A21P	1980	01	-	1512	249	928	1026	98	796	15
BOW SUMMIT II	AL07A	2080	28	69	325	0	254	414	0	157*	17
<b>LOWER COLUMBIA</b>											
FERGUSON	2D02	880	31	61	322	-	-	266	0	63*	14
FARRON	2B02A	1220	27	4	19	-	5	19	0	2*	16
BARNES CREEK	2B06P	1620	01	-	383	0	255	529	0	131*	6
ST. LEON CREEK	2B08P	1800	01	-	1580	398	930	930	225	647	5
RECORD MOUNTAIN	2B09	1890	31	202	1089	230A	827	916	0	526	24
EAST CREEK	2D08P	2030	01	-	1256	333	806	1238	111	673	16
<b>EAST KOOTENAY</b>											

SULLIVAN MINE	2C04	1550	27	9	44	0	52	137	0	21*	16
MORRISSEY RIDGE	2C09Q	1800	01	-	404	26	-	767	0	325	14
RED MOUNTAIN	MT04	1830	26	64	325	0	190	559	0	133*	35
MOYIE MOUNTAIN	2C10P	1930	01	-	214	0	-	438	0	75*	13
FLOE LAKE	2C14P	2090	01	-	979	98	724	975	98	342	4
HIGHWOOD SUMMIT (BUSH)	AL02	2210	26	122	531	89	485	660	89	357*	18
SUNSHINE VILLAGE	AL05	2230	28	149	706	107	612	902	107	490*	14
<b>WEST KOOTENAY</b>											
FERGUSON	2D02	880	31	61	322	-	-	266	0	63*	14
NELSON	2D04	930	01	No Snow		-	8	8	0	1*	16
CHAR CREEK	2D06	1310	Not Available			-	327	327	0	58*	29
GRAY CREEK (LOWER)	2D05	1550	26	102	523	-	393	551	0	200	49
GRAY CREEK (UPPER)	2D10	1910	26	194	1041	-	696	1120	0	555	29
EAST CREEK	2D08P	2030	01	-	1256	333	806	1238	111	673	16
<b>KETTLE</b>											
FARRON	2B02A	1220	27	4	19	-	5	19	0	2*	16
BIG WHITE MOUNTAIN	2E03	1680	30	89	438	5A	274	658	0	194	33
GRANO CREEK	2E07P	1860	01	-	754	11	-	11	11	11*	1
<b>OKANAGAN</b>											
SUMMERLAND RESERVOIR	2F02	1280	25	No Snow		-	0	25	0	6*	7
VASEUX CREEK	2F20	1400	31	No Snow		-	-	0	0	-	7
ESPERON CR (MIDDLE)	2F14	1430	31	14	64	-	-	127	0	18*	8

BRENDA MINE	2F18P	1460	Not Measured			0	0	0	0	-	6
GREYBACK RESERVOIR	2F08	1550	31	No Snow		-	-	155	0B	19*	23
ESPERON CR (UPPER)	2F13	1650	31	69	374	-	-	490	0	92	8
ISINTOK LAKE	2F11	1680	26	No Snow		-	0	211	0	33*	15
MISSION CREEK	2F05P	1780	01	-	641	0	-	615	0	209	27
MOUNT KOBAN	2F12	1810	30	97	437	102	128	488	0	128	33
WHITEROCKS MOUNTAIN	2F09	1830	31	130	653	0	118	848	0	167	27
SILVER STAR MOUNTAIN	2F10	1840	27	176	908	250	631	980	0	409	40
<b>SIMILKAMEEN</b>											
FREEZEOUT CREEK TRAIL	WA11	1070	28	36	152	0	15	15	0	3*	6
ISINTOK LAKE	2F11	1680	26	No Snow		-	0	211	0	33*	15
LOST HORSE MOUNTAIN	2G04	1920	02	27	104	-	60E	330	0	97	29
BLACKWALL PEAK	2G03P	1940	01	-	1058	180	713	1253	0	607	31
HARTS PASS	WA09	1980	26	297	1737	582	1323	1323	406	907*	7
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											

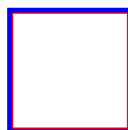
Banner

**June 1, 1999**Fraser  
Basin  
Snow[Fraser Basin Snow Survey Measurements](#)**UPPER FRASER AND NECHAKO**

Precipitation during May was above normal throughout the basin and this, allied with mean temperatures at least a degree below normal, has delayed the normal melt by at least two weeks.

The snowpack is still above normal for this date and any sustained warm weather during the remainder of the month will probably result in peaks higher than those which have occurred so far this year. Whether these peaks reach damaging levels will depend on how rapid the melt is and how late in the year it is.

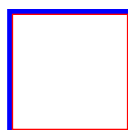
The mean flow in the Fraser at Marguerite for May was only just above normal.

[Data Graphs](#)**MIDDLE AND LOWER FRASER**

Precipitation in both the middle and lower Fraser was well above average during May and the accumulated precipitation since November is about 20% above normal.

In the middle Fraser, while much of the plateau is now clear of snow, the high elevation snowpack, particularly on the east side of the basin, remains well above normal for this date. In the lower Fraser, the high level snowpack remains at record levels for the beginning of June.

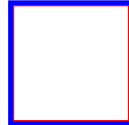
The Fraser at Hope peaked at about 8,000 m<sup>3</sup>/s on May 30. This is as high as the river gets in low runoff years. A higher peak will almost certainly occur if there is any sustained warmth before the end of the month. The height to which the river rises will largely be a function of the rapidity of the melt and how late in the season the warmth arrives.

[Data Graphs](#)

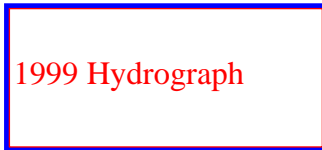
## NORTH AND SOUTH THOMPSON

The relatively wet, cool weather during May has resulted in very little change in the upper-level snowpack in both the North and South Thompson River basins. Although relatively few courses are measured at this time, most are reporting record or near-record water equivalents. For example, Adams River, which has a 29-year history of June 1 readings, reports a new record high reading, a little greater than the 1974 measurement and 79% greater than normal for this date.

Although the snowline is gradually rising, there is still the potential for damaging flooding in the Thompson basin should there be a sustained hot spell before the end of the month. The peak levels attained will largely depend on the speed at which the melt occurs. The mean flow in the Thompson River near Spences Bridge was about 16% above normal for the month of May.



[Data Graphs](#)



1999 Hydrograph

[Fraser River at Hope Hydrograph](#)

---

[Bulletin Home Page](#)

[Groundwater Conditions](#)

[Snow Pillow Information](#)



**COASTAL**

June 1, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>SOUTH COASTAL</b>											
PALISADE LAKE	3A09P	880	Not Available		-	-	-	-	-	-	0
CALLAGHAN CREEK	3A20	1040	30	219	1228	48	78	1128	0	424	15
DOG MOUNTAIN	3A10	1080	02	452	2480	518	885	1115	56	999	12
ORCHID LAKE	3A19	1190	02	613	3648A	1182	1598	2190A	174	1593	20
ORCHID LAKE	3A19P	1190	Not Available		-	-	2463	124	1536*	11	
UPPER SQUAMISH RIVER	3A25P	1340	Not Measured		1058	1358	1485	634	1246	9	
NOSTETUKO RIVER	3A22P	1500	01	-	530	-	0	67	0	17*	8
UPPER MOSELY CREEK	3A24P	1650	01	-	146	0	0	204	0	20*	10
<b>VANCOUVER ISLAND</b>											
TENNENT LAKE	3B22	950	Not Available		-	572Z	712	0	232*	10	
JUMP CREEK	3B23P	1160	Not Measured		131	701	701	0	277*	3	

SNO-BIRD LAKE	3B16	1400	28	561	2970A	-	1300	2438A	0	1091	30
WOLF RIVER (UPPER)	3B17P	1490	01	-	2465	1329	1030	1329	305	1119	11
<b>NORTH COASTAL</b>											
TAHTSA LAKE	1B02	1300	Not Available			551	1133B	1651	535	971	24
TAHTSA LAKE	1B02P	1300	01	-	1576	652	1140	1140	277	768*	6
BURNT BRIDGE CREEK	3C08P	1330	01	-	686	0	-	0	0	-	1
<b>SKAGIT</b>											
FREEZEOUT CREEK TRAIL	WA11	1070	28	36	152	0	15	15	0	3*	6
BEAVER PASS	WA12	1120	27	249	1270	180	714	714	0	260*	5
HARTS PASS	WA09	1980	26	297	1737	582	1323	1323	406	907*	7
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											



**NORTH***June 1, 1999***Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>PEACE</b>											
PACIFIC LAKE	1A11	770	26	71	347	0	348	348	0	70*	25
AIKEN LAKE	4A30P	1040	01	No Snow	0	0	0	0	0	-	12
PULPIT LAKE	4A09P	1310	01	-	119	0	0	146	0	18*	8
PINE PASS	4A02P	1400	01	-	1152	183	997	997	183	871	6
KWADACHA RIVER	4A27P	1620	01	-	458	-	208	409	0	211	11
<b>SKEENA/ NASS</b>											
LU LAKE	4B15P	1310	01	-	26	0	-	0	0	-	1
TSAI CREEK	4B17P	1360	01	-	1388	371	-	371	371	371*	1
KIDPRICE LAKE	4B01	1370	04	156	913	0	805Z	1209	0	680	24
HUDSON BAY MTN.	4B03A	1480	28	102	443	-	380Z	729	0	323	26
SHEDIN CREEK	4B16P	1480	01	-	720	98	536	945	98	526*	3
<b>LIARD</b>											
DEADWOOD RIVER	4C09P	1300	01	-	31	0	0	0	0	-	5

<b>STIKINE/ TAKU</b>											
SPEEL RIVER	AK03	80	27	119	612	0	0	884	0	186*	15
FORREST- KERR CREEK	4D08P	560	01	-	24	0	0	135	0	17*	8
KINASKAN LAKE	4D11P	1020	01	No Snow		0	0	83	0	10*	8
TUMEKA CREEK	4D10P	1220	01	-	219	0	0	488	0	89	9
WADE LAKE	4D14P	1370	01	-	189	0	-	204	0	90	7
UPPER STIKINE	4D13P	1450	Not Measured			0	12	424	0	128*	9

**YUKON**

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE

**FRASER**

June 15, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER FRASER</b>											
PACIFIC LAKE	1A11	770	10	No Snow	-	-	0	0	-	3	
HEDRICK LAKE	1A14	1100	10	68	381	-	-	389	0	155*	4
BARKERVILLE	1A03P	1520	15	-	15	0	0	37	0	23	6
KNUDSEN LAKE	1A15	1580	10	169	911	-	-	864	571	702*	4
REVOLUTION CREEK	1A17P	1690	15	-	534	0	178	513	0	221	13
YELLOWHEAD	1A01P	1860	15	-	641	0	0	0	0	-	2
<b>NECHAKO</b>											
TAHTSA LAKE	1B02P	1300	15	-	1274	104	796	796	0	416*	6
MOUNT PONDOSY	1B08P	1400	15	-	320	0	0	0	0	-	6
MOUNT WELLS	1B01P	1490	15	-	61	0	30	198	0	33*	7
<b>MIDDLE FRASER</b>											
BOSS MOUNTAIN MINE	1C20P	1460	15	-	131	0	0	26	0	5*	5
BRENDA MINE	2F18P	1460	15	No Snow	0	0	0	0	0	-	6
BARKERVILLE	1A03P	1520	15	-	15	0	0	37	0	23	6
MOUNT TIMOTHY	1C17	1660	12	25	113	-	-	0	0	-	2
YANKS PEAK EAST	1C41P	1670	15	-	754	0	146	146	0	73*	2
GREEN MOUNTAIN	1C12P	1780	15	-	933	0	421	552	0	238*	5

MISSION RIDGE	1C18P	1850	15	-	253	0	0	8	0	1*	12
<b>LOWER FRASER</b>											
DISAPPOINTMENT LAKE	1D18P	1040	Not Measured			-	-	595	595	595*	1
DOG MOUNTAIN	3A10	1080	Not Available			89	537	730	0	657	13
WAHLEACH LAKE	1D09P	1400	15	-	1185	12	521	521	0	138*	6
CHILLIWACK RIVER	1D17P	1600	15	-	1759	275	-	585	0	301	4
GREAT BEAR	1D15P	1660	Not Measured			749	1623	1623	655	786	7
TENQUILLE LAKE	1D06	1680	13	274	1675	262	880	1529	10	705	15
<b>NORTH THOMPSON</b>											
COOK FORKS	1E06	1390	15	108	611	0	175	518	0	151	20
BOSS MOUNTAIN MINE	1C20P	1460	15	-	131	0	0	26	0	5*	5
MOUNT COOK	1E02A	1580	15	268	1598	170	869	1311	58	820	19
AZURE RIVER	1E08P	1620	15	-	1489	94	750	750	94	422*	2
ADAMS RIVER	1E07	1720	13	189	994	0	233	1046	0	338	19
KOSTAL LAKE	1E10P	1770	15	-	1285	0	500	817	0	430	14
<b>SOUTH THOMPSON</b>											
ADAMS RIVER	1E07	1720	13	189	994	0	233	1046	0	338	19
SILVER STAR MOUNTAIN	2F10	1840	14	113	641	0	297	747	0	150	30
PARK MOUNTAIN	1F03P	1890	15	-	1095	0	703	958	0	552	13
ENDERBY	1F04	1900	14	222	1210	334	822	1326	62	754	21
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											

# COLUMBIA

*June 15, 1999*

## Snow Survey Measurements

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>UPPER COLUMBIA</b>											
AZURE RIVER	1E08P	1620	15	-	1489	94	750	750	94	422*	2
MOUNT REVELSTOKE	2A06P	1830	15	-	1801	140	747	1283	0	690	6
MOLSON CREEK	2A21P	1980	15	-	1163	0	598	894	0	536	14
<b>LOWER COLUMBIA</b>											
FERGUSON	2D02	880	14	12	61	-	-	0	0	-	2
BARNES CREEK	2B06P	1620	15	-	98	0	0	169	0	28*	6
ST. LEON CREEK	2B08P	1800	15	-	1351	64	499	499	0	247	5
RECORD MOUNTAIN	2B09	1890	12	165	949	0	161	331	0	98*	14
EAST CREEK	2D08P	2030	15	-	1163	0	491	1090	0	395	15
<b>EAST KOOTENAY</b>											
MORRISSEY RIDGE	2C09Q	1800	15	No Snow	11	-	74	0	0	36	14
MOYIE MOUNTAIN	2C10P	1930	15	No Snow	0	-	25	0	0	3*	9
FLOE LAKE	2C14P	2090	15	-	862	0	409	720	0	8	4

<b>WEST KOOTENAY</b>											
FERGUSON	2D02	880	14	12	61	-	-	0	0	-	2
CHAR CREEK	2D06	1310	15	22	106	-	20	25	0	15*	3
GRAY CREEK (LOWER)	2D05	1550	15	43	217	-	-	282	0	50*	15
GRAY CREEK (UPPER)	2D10	1910	15	121	679	-	-	825	0	206*	12
EAST CREEK	2D08P	2030	15	-	1163	0	491	1090	0	395	15
<b>KETTLE</b>											
BIG WHITE MOUNTAIN	2E03	1680	15	31	164	0	0	356	0	54*	18
GRANO CREEK	2E07P	1860	15	-	503	0	-	0	0	-	1
<b>OKANAGAN</b>											
BRENDA MINE	2F18P	1460	15	No Snow		0	0	0	0	-	6
MISSION CREEK	2F05P	1780	15	-	424	0	-	377	0	74	27
MOUNT KOBAU	2F12	1810	Not Available			-	-	157	0	33*	5
WHITEROCKS MOUNTAIN	2F09	1830	Not Available			0	-	533	0	53*	17
SILVER STAR MOUNTAIN	2F10	1840	14	113	641	0	297	747	0	150	30
<b>SIMILKAMEEN</b>											
BLACKWALL PEAK	2G03P	1940	15	-	874	0	330	1031	0	329	31
A - SAMPLING PROBLEMS WERE ENCOUNTERED											
B - EARLY OR LATE SAMPLING											
C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED											
E - ESTIMATED BASED ON AREAL AVERAGE											
* - PERIOD OF RECORD AVERAGE											

# COASTAL

*June 15, 1999*

## Snow Survey Measurements

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>SOUTH COASTAL</b>											
PALISADE LAKE	3A09P	880	Not Measured		-	-	-	-	-	-	0
DOG MOUNTAIN	3A10	1080	Not Available		89	537	730	0	657	13	
ORCHID LAKE	3A19	1190	Not Available		614	1246	1910	0	1247	19	
ORCHID LAKE	3A19P	1190	Not Available		-	-	2074	0	1171*	12	
UPPER SQUAMISH RIVER	3A25P	1340	Not Measured		514	990	1140	236	834	9	
NOSTETUKO RIVER	3A22P	1500	15	-	116	0	0	0	0	-	9
UPPER MOSELY CREEK	3A24P	1650	15	No Snow		0	0	0	0	-	10
<b>VANCOUVER ISLAND</b>											
JUMP CREEK	3B23P	1160	Not Measured		0	26	26	0	9*	3	
SNO-BIRD LAKE	3B16	1400	15	430	2350	-	766	1996	0	738	16
WOLF RIVER (UPPER)	3B17P	1490	Not Measured		853	680	984	0	785	11	

**NORTH  
COASTAL**

TAHTSA LAKE	1B02P	1300	15	-	1274	104	796	796	0	416*	6
BURNT BRIDGE CREEK	3C08P	1330	15	-	334	0	-	0	0	-	1

**SKAGIT**

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE



**NORTH**

June 15, 1999

**Snow Survey Measurements**

Drainage Basin and Snow Course	Station Number	Elev m	Date of Survey	Snow Depth cm	WATER EQUIVALENT (mm)						No. Years Record
					1999	1998	1997	Max.	Min.	Normal	
<b>PEACE</b>											
PACIFIC LAKE	1A11	770	10	No Snow	-	-	0	0	-	3	
AIKEN LAKE	4A30P	1040	15	No Snow	0	0	0	0	-	12	
PULPIT LAKE	4A09P	1310	15	No Snow	0	0	0	0	-	8	
PINE PASS	4A02P	1400	15	-	835	0	582	620	0	487	7
KWADACHA RIVER	4A27P	1620	15	-	454	-	0	239	0	38	10
<b>SKEENA/ NASS</b>											
LU LAKE	4B15P	1310	15	No Snow	0	-	0	0	-	1	
TSAI CREEK	4B17P	1360	15	-	1028	0	-	0	0	-	1
HUDSON BAY MTN.	4B03A	1480	10	66	317	0	68Z	673	0	128	20
SHEDIN CREEK	4B16P	1480	15	-	364	0	169	626	0	265*	3
<b>LIARD</b>											
DEADWOOD RIVER	4C09P	1300	15	No Snow	0	0	0	0	-	5	
<b>STIKINE/ TAKU</b>											

FORREST-KERR CREEK	4D08P	560	15	No Snow	0	0	0	0	-	8
KINASKAN LAKE	4D11P	1020	15	No Snow	0	0	0	0	-	8
TUMEKA CREEK	4D10P	1220	15	No Snow	0	0	67	0	7*	9
WADE LAKE	4D14P	1370	15	No Snow	0	-	0	0	14	7
UPPER STIKINE	4D13P	1450	Not Measured		0	0	58	0	8*	9

**YUKON**

A - SAMPLING PROBLEMS WERE ENCOUNTERED

B - EARLY OR LATE SAMPLING

C - EARLY OR LATE SAMPLING WITH PROBLEMS ENCOUNTERED

E - ESTIMATED BASED ON AREAL AVERAGE

\* - PERIOD OF RECORD AVERAGE